SIXTEENTH MEETING

Torrance, Calif.
September 20th, 1921.

A regular meeting of the Board of Trustees of the City, held in the offices of the Dominguez Land Corporation was called to order by President Proctor at 8 P. M. The following members of the Board were present and answered roll call: Trustees Fitzhugh, Gilbert, Smith, Stone and Proctor.

The minutes of the previous meeting were read and approved.

Trustee Stone reported that with Mr. Ben Hannebrink, the fire chief, and Mr. W. E. Shellhart of the Torrance Water Light and Power Company, he had visited Vista Highlands regarding the placing of standpipes for fire protection and advised that five hydrants be installed on Sixteenth Street and two on Carson Street, He further suggested that the City Attorney ascertain if legal action can be taken to compel the Water Company to provide adequate water pressure for fire protection as he was of the opinion that the Water Company would not do so voluntarily. Trustee Stone then made the motion that the City Clerk be instructed to write the Railroad Commission and complain on the water pressure for fire protection, giving data as to the pressure now being supplied, and that no relief had been given by the Water Company after the City had appealed to that Company. Trustee Fitzhugh stated that he would be in Los Angeles the next day and would interview the Railroad Commission on the matter where upon the motion was withdrawn and the following motion substituted, Motion that a committee of two be appointed to interview the Railroad Commissioner regarding the pressure for fire protection and ascertain what proceedure to follow in remedying the condition. Motion carried.

Trustee Smith called the Boards attention to the fact that the City's finances were becoming exhausted and stated that no available source of income was at hand on account of the expected balance of the County Road Fund being held up pending the settlement of the Montebello suit now in court and made the motion that the Finance committee and the City Attorney meet and endeavor to devise some ways of raising funds and report their findings at the next meeting. Motion carried.

President Proctor stated that he had been in conversation with Mr. Osburn, General Manager of the Dominguez Land Corporation regarding the status of the Sewer Farm property and that the matter still stands, as was stated at previous meeting, there being no new developments. Trustee Gilbert asked if the Sewer Farm could not be acquired by condemnation proceedings. The Attorney stated that he was unable to render a decision at this time but thought that the public had a right to dispose of the sewage on the Dominguez Land Corporation property and gave as his reason that the Dominguez Land Corporation is selling their lots with sewer service available in Torrance Tract. The following motion was made by Trustee Fitzhugh and later withdrawn; that the Board of Trustees consider that the City of Torrance have a right to dispose of sewage on the 43 acre tract now used as a sewer farm and that the City has an easement on the Property for that purpose. The matter was referred to the Street, Sewer and Park committee and the City Attorney for investigation and report at the next meeting.

The City Engineer reported that he was working on plans for the release of certain streets which the City should acquire without delay.

Ordinance No. 9 was given its final reading and passed.

ORDINANCE NO. 9

AN ORDINANCE ESTABLISHING THE GRADE OF ARLINGTON AVENUE FROM CARSON STREET TO THE LONG BEACH AND REDONDO ROAD AND OF NARBONNE AVENUE FROM THE LONG BEACH AND REDONDO ROAD TO THE SOUTHERLY BOUNDARY OF THE CITY OF TORRANCE.

The Board of Trustees of the City of Torrance do ordain as follows:

Section 1. That the grade of Arlington Avenue from the Southerly line of Carson Street to the Long Beach and Redondo Road and of Narbonne Avenue from the Long Beach and Redondo Road to the Southerly boundary of the City of Torrance be and the same is hereby established as follows:

At the intersection of Arlington Avenue and Carson Street at the Southeast cornerthe grade shall be 77.92 and at the Southwest corner the grade shall be 78.85.

At a point 160 feet south of the South line of Carson Street on the East side of Arlington Avenue the grade shall be 78.46, and on the West side 79.35, and the grade lines meeting at these points on both East and West sides of Arlington Avenue shall be supplanted by vertical curves extending fifty feet Northerly and Southerly therefrom.

At the following corners of subdivision blocks of the Torrance Tract as recorded in Book No. 22, pages No. 94 and No. 95 of Maps of the Records of Los Angeles County, Califonria, the grades shall be;

71.45 at the Southwest corner of Block No. 21
71.25 at the Northwest corner of Block No. 33
71.45 at the Southeast corner of Block No. 22
71.25 at the Northeast corner of Block No. 32
67.69 at the Southwest corner of Block No. 33
67.69 at the Northwest corner of Block No. 44
67.93 at the Southeast corner of Block No. 32
68.03 at the Northeast corner of Block No. 45

On the East side of Arlington Avenue at a point 86.35 feet South of the Northwest corner of Block 44 of said Trorance Tract the grade shall be 69.23, and 69.43 on the West side at right angles opposite thereto; and these points on both the East and West sides of Arlington Avenue shall be the centers of vertical curves which shall supplant the straight lines for a distance of 86.35 feet Northerly and Southerly therefrom.

"A"

At the following corners of Blocks of the aforementioned Torrance Tract the grades shall be:

70.57 at the Southeast corner of Block No. 44
70.73 at the Northeast corner of Block No. 43
70.89 at the Southeast corner of Block No. 45
71.07 at the Northeast corner of Block No. 46
71.81 at the Southwest corner of Block No. 43

On the west side of Arlington Avenue at the Point of intersection

of the prolongation of the lines of the easterly and southwesterly sides of Block No. 46 of the said Torrance Tract, the grade shall be 72.10

On the Westerly side of Arlington Avenue at the Northeast corner of Block No. 3 of Tract No. 3757 as recorded in Book 41, Pages 24 and 25 of Maps of the Records of Los Angeles County the grade shall be 72.88, and on the East side of Arlington Avenue at right angles thereto the grade shall be 72.88.

At the intersection of Arlington Avenue and Lincoln Avenue at the Northwest corner the grade shall be 79.87, and at the Southwest corner the grade shall be 80.57. At the Northeast corner the grade shall be 79.87, and where the East side of Arlington Avenue is intersected by a prolongation of the Southerly line of Lincoln Avenue of said Tract No. 3757 the grade shall be 80.57.

At the intersection of Arlington Avenue and the Northerly strip designated as Lot "S" of Tract No. 1952 as recorded in Book 23, page 83 of Maps of the Records of Los Angeles County, the grade shall be:

at the Northeast corner 85.65
at the Northwest corner 85.65
at the Southeast corner 85.63, and
at the Southwest corner 85.63

On the West side of Arlington Avenue at the Northeast corner of Lot 3, Block 300 of Tract No. 1952 above referred to, the grade shall be 84.95 and at a point on the East side of Arlington Avenue at right angles thereto the grade shall be 84.95, and the grade lines meeting at these points on both the East and West sides of Arlington Avenue shall be supplanted by vertical curves extending 100 feet northerly and southerly therefrom.

At the intersection of Arlington Avenue and the Long Beach and Redondo Road the grades shall be 89.65 on the East side of Arlington Avenue and 89.99 on the West side of Arlington Avenue.

Section 2. The grades on the continuation of Arlington Avenue southerly of the Long Beach and Redondo Road known and so shown on the recorded maps as Narbonne Avenue are hereby established as follows:

At the intersection of Narbonne Avenue and the Long Beach and Redondo Road on the Westerly side of Narbonne Avenue, the grade shall be 90.98.

"B"

And at a point on the northerly prolongation of the easterly side of Narbonne Avenue 19.10 feet northerly of the intersection of the easterly side of Narbonne Avenue with the Long Beach and Redondo Road the grade shall be 90.98.

At a point on the Westerly side of Narbonne Avenue 125.00 feet Southerly of the intersection of the Westerly side of Narbonne Avenue with the Long Beach and Redondo Road, the grade shall be 92.98, and on the Easterly side of Narbonne Avenue at right angles thereto the grade shall be 90.98, and extending Southerly from these points on both sides of Narbonne Avenue the grade shall be a descending grade falling 2.80 feet per 100 feet of the distance therefrom to the intersection of the Southerly city boundary with each side of Narbonne Avenue.

The points on both sides of Narbonne Avenue the grade of which is 92.98 shall be the centers of vertical curves which shall supplant the straight lines for 125 feet Northerly and Southerly therefrom.

Section 3. That between all grade points enumerated in the foregoing sections the grades shall conform to straight lines joining consecutive points which are on the same side of Arlington Avenue and Narbonne Avenue, except that between points where vertical curves have been specified said vertical curves shall supplant the straight grade lines within the designated limits. The grade lines given are on property lines or exterior lines of the Avenues and are in feet above the City Datum Plane.

Section 4. The Profile of Arlington Avenue and Narbonne Avenue designated as Profile No. 1 on file in the office of the City Engineer of the City of Torrance which more particularly exhibits the grades herein described is hereby declared to be the official profile and to exhibit the established grades.

Section 5. The City Clerk shall certify to the adoption of this ordinance and shall cause the same to be published once in the Torrance Herald, a weekly newspaper of general circulation, published and circulated in said City and thereafter the same shall be in full force and effect.

I hereby certify that the foregoing ordinance was adopted by the Board of Trustees of the City of Torrance at its regular meeting held on Tuesday the 20th day of September, 1921, by the following vote, to wit:

Ayes: Trustees Fitzhugh, Gilbert, Smith, Stone and Proctor
Noes: None
Absent: None

Signed and approved this 20th day of September, 1921.

ORDINANCE NO. 10.

AN ORDINANCE REGULATING THE CONSTRUCTION, ALTERING, REPAIRING AND REMOVING OF BUILDINGS IN THE CITY OF TORRANCE, PROVIDING FOR THE ISSUING OF PERMITS FOR THE SAME, AND FOR THE PROTECTION OF LIFE AND PROPERTY FROM FIRE, AND ALSO PROVIDING FOR THE APPOINTMENT OF A BUILDING INSPECTOR.

The Board of Trustees of the City of Torrance, do ordain as follows:

Section 1. That the City of Torrance shall be, and the same is hereby divided into two fire distrcits to be known and designated, respectively as

FIRE DISTRICT NUMBER ONE.
FIRE DISTRICT NUMBER TWO.

FIRE DISTRICT NO. 1.

Fire District No. 1 shall comprise the area included within the following boundaries:

Beginning at the intersection of the northerly line of Lot S-4 and the center line of the alley extending north and south in Block 39 of the Torrance Tract as the same is recorded in Book 22, Pages 94 and 95 of Maps of the Records of Los Angeles County, California; Thence north along the center line of the alleys of Blocks 39, 40, 35 and 19 of said Torrance Tract and a northerly prolongation of the same line to the southerly line of Carson STREET;

Thence northwesterly along a straight line crossing Blocks 17, 16, 15, 14 and 13, parallel to and at a distance of one hundred fifty (150) feet at right angles from the northeasterly ends of the above mentioned Blocks of said Torrance Tract to the center of Lot S-16 of said Torrance Tract;

Thence northeasterly on a straight line along the center of Lots S-16 and S-6 of said Torrance Tract to a southeasterly prolongation of a line drawn along the center of Lot A-70 of Block 70 of Said Torrance Tract;

Thence northwesterly and westerlyalong a line drawn through the centers of Lots A-70, A-69, A-75, A-85, A-84 and A-83 of said Torrance Tract to the east side of Lot S-25 of said Torrance Tract;

Thence northerly along the east side of said Lot S-25 and a northerly prolongation therof to the southerly line of the one hundred twenty-five acre tract occupied by the Pacific Electric Railway Car Shops:

Thence westerly along the southerly line of said one hundred and twenty-five acre tract to the southwest corner thereof;

Thence northerly along the west side of said one hundred and twenty five acre tract to the northwest corner thereof:

Thence easterly along the northerly side of said one hundred and twenty-five acre tract to the northeast corner thereof;

Thence southerly along the easterly side of said one hundred and twenty-five acre tract to the point where it is intersected by a westerly prolongation of the northerly side of the property of the Llewellyn Iron Works;

Thence easterly along the north line of said property of the Llewellyn Iron Works and an easterly prolongation thereof to the easterly line of the Pacific Electric Railway right of way one hundred feet in width;

Thence south easterly along the easterly line of said Pacific Electric right of way and a southerly prolongation thereof across the street named El Prado to the southerly line of El Prado;

Thence easterly along the southerly line of El Prado to the easterly boundary of the City of Torrance;

Thence southerly along easterly boundary of the City of Torrance and southerly prolongation thereof to an easterly prolongatinn of the northerly line of Lot S-3 of the aforementioned Torrance Tract;

Thence north westerly along the northerly lines of Lots S-3 and S-4 and prolongations thereof to the place of beginning.

Fire District No. 2 shall comprise all of the corporate limits of Torrance not included within the fire district No. 1.

BUILDING INSPECTOR APPOINTMENT AND DUTIES.

Section 2. The office of Building Inspector of the City of Torrance is hereby created and all appointments to such office shall be made by resolution duly passed by said Board of Trustees, and which said resolution shall also fix the salary and compensation to be paid the appointee therein named, and such appointee shall hold office during the pleasure of said board.

The duties of such inspector shall be to enforce the provisions of this ordinance, and generally to do and perform such duties as the Board of Trustees shall, by ordinance or otherwise, direct.

PERMIT NECESSARY.

Section 3. It shall be unlawful for any person, firm or corporation, either as owner, architect or builder, to commence or proceed with the erection, construction, alteration, repair, moving or demolition, exceeding one hundred dollars ($100.00) in cost (restoration of plaster or painting excepted) of any building in the City of Torrance (other than building erected by the City of Torrance, the County of Los Angeles, the State of California, or the United States), unless a permit to do such work has been first obtained as herein provided.

The person, firm or corporation desiring such permit shall file with the Building Inspector, on a blank to be furnished by him, an application therefor, and with such application shall submit to him plans and specifications of the proposed work. Such application shall set forth the land upon which the proposed work is tobe done, describing the same by lot and block, or other accurate description, the general dimensions of the building to be constructed, altered, repaired, moved or demolished; the number and height of the stories thereof, and the names of the owner, the architect and the contractor therefor, an estimate of the cost of the proposed work and the purpose for which such building or repairs are designed, and such other matter as the building Inspector may require.

Thereupon, if it shall appear that the work to be done conforms to all requirements of the law on payment of the fees hereinafter provided for, the said Building Inspector shall authorize the issuance of a permit for the doing of the proposed work described in said application.

FEES FOR PERMITS.

Section 4. The City Clerk shall issue all building permits, which building permits shall be issued upon presentation of the data called for by this Ordinance and the City Clerk shall charge therefor the following fees, to wit: Where the cost of the proposed work does not exceed $1000.00, $1.50; where the cost of the proposed work exceeds $1000.00 but does not exceed $2000.00, $2.50; where the cost of the proposed work exceeds $2000.00 but does not exceed $3000.00, $3.00; where the cost of the proposed work exceeds $4000.00 but does not exceed $5000.00, $4.00; where the cost of the proposed work exceeds $5000.00 but does not exceed $6000.00, $4.50; where the cost of the Proposed work exceeds $6000.00 but does not exceed $7000.00, $5.00; where the cost of the proposed work exceeds $7000.00 but does not exceed $8000.00, $5.50; where the cost of the proposed work exceeds $8000.00 but does not exceed $9000.00, $6.00, where the cost of the proposed work exceeds $9000.00 but does not exceed $10,000, $6.50; where the cost of the proposed work exceeds $10,000 but does not exceed $20,000, $10.00; where the cost of the proposed work exceeds $20,000, $15.00. The above fees shall include inspection of the work. No fee shall be charged or permit required for work costing less than $100.00, except for garages and for inspecting garages the fee shall be $1.50.

Section 5. The City Clerk shall keep in proper books for that purpose an accurate account of all fees paid to him under this Ordinance, giving the name of the party paying the same and the date and the amount of such fees which said books shall be kept open for public inspection. He shall pay all fees received by him during each month into the City Treasury upon the first busines day of the following month, and make a report to the Board of Trustees on the first Tuesday in each month of all fees collected during the preceeding month, producing a Treasurer's receipt for the same.

Section 6. If any person, whether as owner, architect or builder, shall commence the erection, construction, alteration, repair, moving or demolition of any building, without a permit first having been obtained from the Building Inspector for such work , when required by this Ordinance, he shall be required, when subsequently taking out such permit, to pay for the same double the amount of the fee hereinbefore provided for such permit.

WHEN PERMIT EXPIRES.

Section 7. After a permit for the erection, alteration, repair, moving or demolition of a building has been issued, if the work authorized by said permit is not begun within sixty (60) days from the date thereof, said permit shall become void, and before such work can be commenced a new permit shall be taken out thereof, and the same fees as herein fixed for the original permit shall be paid.

REVOCATION OF PERMIT.

Section 8. If work upon any building shall be conducted in violation of any of the provisions of this Ordinance, it shall be the duty of the Building Inspector to revoke the permit for the building operations in connection with which violation shall have taken place, and if work upon any building shall be abandoned for a period of more than sixty (60) days, the Building Inspector shall have power to revoke the permit therefor. It shall be unlawful for any person, firm or corporation after the revocation of any such building permit to proceed with the building operations for which the same was issued unless such permit shall have first been reinstated or reissued by the Building Inspector. Before a permit revoked for any cause before mentioned can be lawfully reissued or reinstated, the entire building and building site must be put into such condition as is in this Ordinance provided and any work or material applied to the same in violation of the terms of this Ordinance must be removed or corrected.

MOVING BUILDING.

Section 9. In case of moving any building, the cost of moving added to the cost of any repairs, additions or alterations to be made to such building after the moving thereof, shall constitute the total cost for the purpose of determining the fee to be paid for the permit according to the above schedule. A building removed shall in all cases be subject to the requirements of this Ordinance applicable to the fire district to which the building is removed. In case of moving any building upon, along or across any public street, alley or place, the permit issued by the Building Inspector shall be lawful only when accompanied by a permit to occupy or use such public street, alley or place issued by the Street Superintendent of the City of Torrance.

DEMOLITION OF BUILDINGS

SECTION 10. When plans and detailed statements are filed in the office of the Building Inspector for the erection of a new building, if an existing building or part of an existing building is to be demolished, such fact shall be stated in the statement so filed.

In demolishing any building, one story shall be completely removed before the demolition of another story is begun. No material shall be placed upon the floor of any such building in the course of demolition, but the brick, timbers and other structural parts of each story shall be lowered to the ground immediately upon displacement. The owner, architect, builder or contractor for any building, structure, premises, wall, platform, staging or flooring to be demolished shall give not less than twenty-four hours notice to the Building Inspector of such intended demolition.

CHANGE OF USE OF BUILDING

Section 11. It shall be unlawful for any person, firm or cor-

poration, as owner or occupant, to apply any building to a new or different use from that to which its construction or equipment adapts it under this Ordinance unless the requirements of this Ordinance for buildings devoted to such new or different use shall first have been compiled with and a permit for such alteration of use shall have been first obtained from the Building Inspector.

ALTERATION OF EXISTING BUILDING

Section 12. It shall be unlawful for any person, firm or corporation to enlarge, alter, raise, lower, move or build upon any building already erected or in course of construction or hereafter to be erected in the City of Torrance, in such manner that at the completion of such work the whole building or any part there of shall violate any of the provisions of this Ordinance, excepting only that where an existing wooden building in Fire District Number One is altered or repaired as to the interior thereof only, it shall be lawful to make such alterations or repairs to the satisfaction and under the supervision of theBuilding Inspector with materials of the same kind as those of which the remaining portion of such building is constructed.

REPAIRS, ETC.

Section 13. Whenever the Building Inspector shall find that any building, wall, chimney or smokestack or other structure or any part of a burnt building is, from any cause whatever in a situation or condition to be dangerous to life, persons, or property, or that any building is unsafe for the purpose for which it is used, or is in danger of fire from any defect in its construction, or that the doors, passageways, or stairways of any factory, workshop, store building, office building or other place of employment, are insufficient for the escape of the employes therein in case of fire, or that any part of any building does not conform to the Ordinances of the City of Torrance, he shall notify the owner thereof, or his agent, or the occupant thereof, or any person having control thereof, in writing, specifying wherein the danger consists or wherein the building is unsafe, insufficient or defective, or not in conformity with the ordinances of said City, and requiring such persons forthwith to remove, demolish or repair the same or make such alterations therein as may be necessary to make the same conform to the Ordinances of said City, and the person receiving such notice shall within forty-eight hours after receiving the same, begin to comply with the requirements thereof, and shall complete the work so required as soon as practicable. If he shall fail to do so, said Building Inspector may cause said work to be done at the cost of the City of Torrance. The City Attorney shall thereupon institute and prosecute an action against the owner of said building or part thereof for the recovery of the costs of doing such work. It shall be unlawful for any person, firm or croporation to continue the use of any building, or dangerous or insufficient part thereof, unless the work mentioned in said notice from the Building Inspector shall have been done, or to fail or refuse to comply with any such notice.

CHANGES IN PLANS

Section 14. After a permit has been granted for the construction, alteration, repair, moving or demolition of any building, the plans thereof shall not be changed without notice having been given to the Building Inspector of said change and the nature thereof, and a permit secured from him therefor. If such change increases the cost of the proposed work, the Building Inspector shall collect an additional fee for such change in accordance with the scale of fees hereinbefore prescribed.

The issuance of a permit shall not be considered an approval by said Building Inspector of the plans and specifications for the proposed work submitted to him. Nothing in this Ordinance contained shall authorize the moving of any building along across or upon any public street, alley or place.

BUILDINGS DAMAGED BY FIRE

Section 15. Whenever any wooden building within the limits of the Fire Districts of the City of Torrance is damaged by fire or otherwise, to the extent of thirty per cent or more of its actual value, the Building Inspector shall immediately give notice in writing to the owner, or owners, of such wooden building, or to his, her or their agents, or to the person or persons having control thereof, to remove or demolish said building completely, or in lieu thereof, to make such extensive alterations therein that the same shall meet fully the requirements of this Ordinance. The person receiving such notice shall, within forty-eight hours after receiving the same, begin to comply with the requirements thereof, and shall complete the work so required as soon as practicable. If the person or persons to whom any such notice is given shall fail to do so the Building Inspector shall proceed as provided in Section 13 hereof.

CERTIFICATE OF INSPECTION

Section 16. It shall be unlawful for any person, firm or corporation, either as owner, architect or builder, to lath, plaster or otherwise conceal the structural work of any building erected of Class "A", "B" or "C", or any building erected of class "D" occupying in excess of 300 square feet of ground surface or more than one story in height or any building remodeled or repaired of class "A", "B", "C", or "D" when the cost of such remodeling or repairs exceeds $100.00, or any building removed of Class "A", "B", "C" or "D" without obtaining from the Building Inspector a certificate of inspection, the date of which, with the date and number of the building permit, shall be noted on a card which shall be prominently displayed upon the building during building, repairing, remodeling or removal operations.

A duplicate permit giving the number and date of the building permit, shall be furnished the Building Inspector, and it shall be the duty of the Building Inspector to make the required inspection as soon as practicable thereafter and within forty-eight hours after the receipt of such notice.

Should the Building Inspector find that the requirements of this Ordinance have not been fulfilled, he shall notify the owner, architect or builder of the necessary changes to be ma de or work to be done in order thatthe requirements of this Ordinance may be fulfilled, and the owner, architect or builder shalll immediately proceed to make the necessary changes or perform the necessary work, and when the same is completed a notice in writing shall be furnished the Building Inspector, who will thereupon make a reinspection. A certificate of inspection shall be issued by the Building Inspector only when he shall find that the requirements of this Ordinance have been fully complied with.

INTERFERENCE WITH BUILDING INSPECTOR

Section 17. It shall be unlawful for any person in any way to hinder or prevent the Building Inspector or any of his deputies or any other duly authorized officer from entering or insepcting during business hours any building already erected or any building in course of construction, alteration, repair, removal or demolition; provided, that such officer shall not be authorized to enter any dwelling house after the same is occupied without the consent of the occupant thereof.

WORK IN VIOLATION OF ORDINANCE

Section 18. It shall be unlawful for any person, firm or corporation, whether as owner, or architect, contractor, or artisan or otherwise, to erect or cause to be erected any building, or to do or cause to be done any work in or upon any building, in such manner that the same shall violate any of the provisions of this ordinance.

APPEAL

Section 19. In the cases provided for by Section 13 of this Ordinance, an appeal to a hearing of the Board of Trustees shall be allowed to any person aggrieved by any decision or order of the Building Inspector made in the exercise of the powers conferred by said Section, as follows: The person wishing to make such an appeal must do so within five days after written notice of the decision or order of the Building Inspector has been given, by filing with the City Clerk a request for a hearing by the Board of Trustees, which shall be in writing. The Board of Trustees shall at their next meeting hear or set a time to hear both sides of the case and after said hearing shall thereupon render a decision which shall be binding.

Whenever the decision of the Building Inspector upon the safety of any building or any part thereof is made in a case so urgent that failure to promptly carry out his orders to demolish or strengthen such building or part thereof may endanger life or limb, the decision and order of the Building Inspector, when set forth in a notice marked "emergency" and approved by the President of the Board of Trustees shall be final without recourse to appeal.

DEFINITION OF TERMS

Section 20. For the purpose of this ordinance the following terms shall have the meaning attached to them by this article, unless it is apparent from the context that they are used with another meaning:

A "dwelling" is a building intended for the residence of not more than two families.

An "apartment house" or a "tenement house" is a building containing separate apartments for three or more families, and having a street entrance common to all.

"Flats" is a building of two or more stories containing independent dwellings, each dwelling having its own entrance.

A "hotel" is a building used as a place of entertainment for the accommodation of transient guests and having more than ten sleeping rooms for the use of the guests.

A "boarding" or "lodging house" is a building used for boarding or lodging purposes, and containing not less than five and not more than ten sleeping rooms for the use of guests.

An "office building" is a building, the whole or a larger part of which is distinctly intended and used for office purposes, and no part of which is used for living purposes, except by the janitor and his family.

A "theatre" is a building in which is a room used for theatrical or operatic exhibitions or other public entertainments, having a total seating capacity of three hundred or more persons, upon the stage of which movable scenery is used, or which has a stage twenty feet or more in depth with the ceiling of the stage more than three feet higher than the proscenium arch at any point.

A "public hall" is a room with a seating capacity of one hundred or more persons, which is used for public assemblages and which is not a theatre.

A "hospital," "sanatarium" or "asylum" is a building designed or used for the housing of persons afflicted with disease or injury, or of aged, infirm or orphaned persons in number exceeding ten.

A "warehouse" is a building used for the storage of goods, or whose floors are designed to sustain a load of two hundred and fifty pounds or more to the square foot.

A "factory" is a building used for manufacturing purposes.

A "barn" is a building for the housing of vehicles and domestic animals.

A "shed" is a building having one open side, and the walls of which are unplastered and not more than 12 feet high.

An "outbuilding" is a building occupying not more than 200 square feet of ground space, the outer walls of which are not more than 12 feet high and which is not a barn or a dwelling house.

A "store building" is a building used wholly or in part for the exhibition and sale of goods, wares, or merchandise.

"Alterations" means any change or addition.

"Repairs" means the reconstruction or removal of any existing part of a building or of its fixtures or appurtenances.

"Party wall" means a wall used or designed to be used between two buildings.

"Partition wall" means any interior wall of a building other than a division wall.

"Division wall" means any wall other than an exterior wall or a party wall, which extends the full height of the building and through the roof, and such walls shall be in all respect as provided for a party wall.

"Bearing wall" is a wall carrying the interior load of a building.

"Exterior wall" means every outer wall or vertical enclosure of a building other than a party wall.

"Thickness of wall" means the minimum thickness of such wall between floors or between ceiling and roof.

"Cellar or basement" means a lower story, any part of the height of which is below the level of the street or streets on which it faces, or more than one-half of the height of which is below the general level of the surrounding gound.

"Fire proofing" of structural iron or steel means the protection from rust and fire by brick, terra cotta or concrete as follows: All structural steel or iron, being fire proofed, shall, unless incased in concrete, be cleaned of dirt and scale, and be coated with an efficient preservative. All iron and steel columns, girders and beams, including lugs and brackets to same, used in construction of any fire proof building or supporting any fire proof floors or masonry walls, shall be entirely covered with not less than two inches of well burned brick or tile, laid in cement mortar, or with concrete, with no space next to metal. The extreme outer edges of lugs, brackets and similar supporting metal may project to within seven-eights of an inch of the surface of the fire proofing.

The shells and webs of hollow tile blocks more than six inches thick shall not be less than three-fourths inch thick, and said blocks shall be thoroughly tied and anchored together. Structural iron or steel in exterior walls shall be considered fire proofed when throughly protected by concrete, tile, brick or sandstone, which shall be built in solid to the metal; but where any column projects out of a wall into the the building it shall be fire-proofed as aforesaid for interior columns.

"Story" means for the purpose of calculating the thickness of foundations, walls and studding, any part of a building of which three-quarters or more is above the level of the street or streets on which it faces, or the general level of the street or streets on which it faces, or the general level of the ground, or which exceeds seven feet in height above the ground.

"Masonry" means brick, stone, concrete or reinforced concrete.

A "frame building" means any building, the outer walls of which in whole or in part are constructed of vertical studding not less than 2 X 3 inches in size and spaced not more than two feet from center to center.

"Galvanized iron construction" means the covering of exterior walls and roof with galvanized iron, which in no case shall be of lesser thickness than No. 22 gauge.

DESCRIPTION OF BUILDINGS OF CLASS "A"

Section 21. Class "A" shall include every building which, according to the best modern architectural practice, would be considered thoroughly fire proof in its construction. The Building Inspector is hereby authorized to issue permits for the erection of such buildings when satisfied that plans and specifications are of such character, and that there is no confliction with this Ordinance.

No building of Class "a" shall exceed in height one hundred and thirty feet.

DESCRIPTION OF BUILDINGS OF CLASS "B"

Section 22. Class "B" shall include every building not of Class "A" but in the construction of which all internal loads are carried to the foundations by masonry walls or by wall, piers, columns and girders of masonry, steel or iron and all exterior walls are of masonry or of masonry and steel.

In buildings of Class "B" interior floors, stairways and partitions may be of wood, but must be of"Semi-Fire Proof" or "Slow-Burning" construction.

The Building Inspector is hereby authorized to issue permits for such buildings when satisfied that plans and specifications submitted for same are of such character and that there is no confliction with this Ordinance.

No building of Class "B" shall exceed in height one hundred feet, and in no case shall the number of stories in any such building exceed eight, exclusive of basement.

DESCRIPTION OF BUILDINGS OF CLASS "C"

Section 23. Class "C" shall include every building having its exterior walls of masonry, wherein all of the floor and internal loads are not wholly carried and transmitted to the foundations by masonry or metal columns and girders and masonry.

No building of Class "C" shall exceed in height eighty feet, and in no case shall the number of stories in any such building exceed six, exclusive of basement.

DESCRIPTION OF BUILDINGS IN CLASS "D"

Section 24. Class "D", termed frame construction, shall include every building wherein all frames of outside walls and partitions are constructed of studding. No building of Class "D" shall be more than fifty feet in height, or contain more than four stories exclusive of basement.

CLASS "E"

Section 25. Class "E" shall include every building which is not included in Classes "A", "B", "C" and "D".

CLASSES OF BUILDINGS IN FIRE DISTRICT NUMBER ONE.

Section 26. It shall be unlawful for any person, firm or corporation, as owner, architect, contractor or otherwise, to erect or cause to be erected, or to commence or proceed with the erection of any building within the limits of Fire District Number One of the City of Torrance unless said building shall conform in all respects to the requirements of this Ordinance for a building of either Class "A", Class "B", or Class "C" as the same are hereinafter more particularly set forth, or to construct a building of either of said classes of a greater height than is hereinafter set forth as the limit of such height, except only that upon application in writing the Board of Trustees of the City of Torrance may by resolution authorize the use of galvanized iron construction for barns, sheds and outbuildings as described in Section 20 hereof.

CLASSES OF BUILDINGS IN FIRE DISTRICT NUMBER TWO.

Section 27. It shall be unlawful for any person, firm or corporation, as owner, architect or contractor, or otherwise, to erect or cause to be erected, or to commence or proceed with the erection of any building within Fire District Number Two of the City of Torrance unless said building shall conform in all respects to the requirements of this Ordinance for a building of either Class "A", "B", "C", "D" or "E" as the same is more particularly set forth in this Ordinance except only that sheds, barns and out-buildings of one story and not occupying more than five hundred square feet of ground space, may be erected of "Wooden Construction", provided that no such building shall be erected within five feet of any other building and provided that the use of any such building shall not be afterwards changed so that it is brought into variance with this Ordinance, and providing also that dwellings of not over 1,000 square feet of floor surface to be built not closer than 20 feet from front street line and 18 feet from any side street and not closer than three feet from any property line, may be built of "Wooden Construction" and brick chimney or flue therefor which is not over 8½ inches by 8½ inches, inside measurement, and not over 12 feet in height, of brick work may rest upon a flue stand having not less than four 2 X 4 inch timbers for studding therefor, which shall rest on mud sills of 2 X 6 inch redwood timbers, said mud sills shall rest upon a foundation of three courses of brick work, built solid, and have a footing four inches larger than stand, which shall be same size as flue, the shelf or upper end of said stand shall have two 2 X 4 inch joists and be capped with two inch timbers forming shelf thereto. Also foundation for said building may be constructed of brick piers not smaller than two courses of 8 inches square and not over four feet apart, provided that the load between same shall be carried with a timber of not less than 2 X 6 inches, set on edge.

BLACKSMITH SHOPS, FACTORIES, ETC.

Section 28. It shall be unla wful for any person, firm or corporation to erect or cause to be erected, maintain or cause to baintained, occupy or cause to be occupied, any livery stable, blacksmith shop, stone crusher, rolling mill, planing mill, carpet-beating establishment, fire-works factory, soap factory, gas works, warehouse, laundry, smelter, oil refinery, or garage for the storing and repair of automobiles and other self-propelling vehicles for hire, or to erect a steam engine, or boiler, for any use, or to use the same, or to erect any tank for the storage of crude petroleum, within the limits of the City of Torrance except under permission in writing first obtained from the Board of Trustees of the City of Torrance which when filed with the City Clerk, shall constitute his authority to issue the necessary building permit, as per Section 3 hereof.

Gasoline Filling Stations are prohibited in the residence district as herein outlined except under the following procedure. The parties applying for a permit for the same shall first secure the written consent of all of theowners of property fronting on all of the street for one block in all directions therefrom, if the station is to be located on or near a street intersection and if said station is to be located nearer the center of a block the written consent shall be obtained from all of the owners of property on said street from the location of said station in both directions to the second cross street therefrom. Such consent properly signed by the property owners shall be presented to the Board of Trustees who may order said permit to be issued or refused.

THEATERS.

Section 29. Permission in writing from the Board of Trustees of the City of Torrance must be secured before it will be lawful for any person, firm or corporation to erect or cause to be erected, maintain or cause to be maintained, occupy or cause to be occupied any building used for or capable of being used for a theater. No theater shall be erected, maintained or used which is not of Class "A" construction throughout as well as modern and complete in all its details to the satisfaction of the Board of Trustees of the City of Torrance and to the Building Inspector.

MEASUREMENTS OF BUILDINGS.

Section 30. The greatest linear dimension of any building shall be its length, the next greater its width.

The height of a building fronting on streets shall be taken from the curb level at the center of its front. The height of a building fronting more than one street shall be taken from the average height of the curb at the centers of its fronts.

CONSTURCTION.

Section 31. In every building of Class "C" containing five or six stories, the joists up to and including the second floor, shall be supported by steel, iron or masonry.

Every column and girder in a building of Class "C" carrying masonry shall be thoroughly protected with fireproofing material, which shall be composed of concrete, terra cotta or brick, covering all surfaces

Buildings of Class"C" under five stories in height may have all interior walls, girders and posts of wood on masonry foundations, except that there shall be no masonry in any case carried on wooden girders or posts, and except as hereinafter provided.

All posts or columns of the first story and basement of store buildings, shall be of incombustible material when the building is more than two stories high. The weather roofing of all roofs shall be of incombustible material.

FOUNDATIONS.

Section 32. Foundations for buildings of Class "C" shall not be of less depth below the natural surface of the ground than as provided in the following schedule:

For one story buildings, one foot,
For two and three story buildings, two feet,
For four story buildings, three feet,
For five and six story buildings, four feet.

The Building Inspector may require deeper foundations if, in his judgement, necessary for the stability of the proposed structure.

No foundation walls in buildings of Class "C" shall rest upon any filled or made gound.

The width of the foundations of the several parts of any building shall be proportioned to the load to be carried, as hereafter specified.

No course of brick footing shall project more than two inches

from footing or wall above, and if formed of stone or concrete no course shall be less than twelve inches thick, nor shall any course project more than six inches.

The width of the footings of every foundation wall shall be not less than 75 per cent greater than that of the wall resting thereon.

THICKNESS OF OUTSIDE WALLS OF MASONRY BUILDING.

Section 33. Every exterior masonry wall of any building must be built to conform in thickness to the following tables, thicknesses being given in inches, to wit:

No. Stories in Building	Base-ment	1	2	3	4	5	6
1 Story	12	18					
2 Stories	16	12	8				
3 Stories	20	16	12	8			
4 Stories	20	20	16	16	12		
5 Stories	24	20	20	16	16	12	
6 Stories	24	24	20	20	16	16	12

Section 34. Every party wall and division wall shall be built to conform in thickness to the following table, thickness being given in inches, to wit:

No. Stories in Building	Base-ment	1	2	3	4	5	6
1 Story	12	8					
2 Stories	16	12	8				
3 Stories	20	16	12	8			
4 Stories	24	20	20	16	12		
5 Stories	24	24	20	20	16	12	
6 Stories	28	24	24	20	20	16	12

PARTITION WALLS OF CLASS "C" BUILDINGS

Section 35. Where masonry walls are used for partition walls to divide rooms, and form no part of the supports of the building, then the same may be four inches less in thickness than the exterior walls.

HEIGHT OF STORIES

Section 36. In buildings of Class "C" the height of an exterior wall in any one story shall not exceed fourteen times its thickness, excepting that in one-story buildings the height of such walls shall be not more than sixteen times the thickness of the walls.

FIRE WALLS

Section 37. All exterior, division and party walls of buildings of Class "C" shall project through and be at least two feet above the adjoining roof line and shall be not less than twelve inches thick, Such fire walls shall be continuous without opening therein and shall be la id in mortar containing not less than one part of cement to three parts of good lime mortar; said cement mortar to extend from the top of the wall to a point two feet below the roof joists and all such brick work to be laid as "full grouted" or "Shoved" work. Where by reason of the pitch of roofs or otherwise, fire walls shall extend more than two feet six

inches above adjoining roof line, the same shall be anchored with three-quarter inch iron rods of pipes of one inch outside diameter; said anchors to be well secured to roof and to have "T" heads built eight inches into wall, eight inches below its top. Anchors to be not more than ten feet apart.

LIGHT COURTS OF CLASS "C" BUILDINGS.

Section 38. Every outside light court in any building of Class "C" shall be constructed with walls of masonry; the walls to be of the thickness hereinbefore specified for exterior masonry walls in general. Every skylight at the bottom of a light court or upon a roof shall be or corrugated, prismatic, or wire glass of not less than one-fourth inch thickness, set in a metallic frame.

Every skylight not glazed with wire glass shall be protected both above and below by a wire screen supported on an iron frame, at a distance not less than four or more than six inches from the glass. Every such screen shall be made of galvanized wire not smaller than No. 12, with not larger than one and one-quarter inch mesh, and shall have a galvanized wire rim of three-eights inch diameter at each outer edge and all the wires forming the mesh shall be turned over said rim. Any roofing in a light court shall be treated the same as the main roof. Every light used in a floor shall be of such a strength that the frame and glass of same shall be capable of sustaining the same load as the surrounding floor. Every such frame must be of metal. Every interior light court shall be protected with sheet metal of not less than No. 22 gauge galvanized iron with locked joints, or shall be lathed with metal lath or half-inch metal furring strips, and plastered; or shall be of masonry constructed as described in the foregoing for exterior light courts. There shall be no exposed woodwork, however, in any light court, except the blind stop. Before any metal furring strips are applied, every interior light court shall be boarded solid and tight with one-inch sheathing. Where an interior light court is covered with galvanized iron, there shall be an interior light court is covered with galvanized iron, there shall be an inner lining of asbestos paper directly against the boards covering all surfaces thereof, provided, however, that the construction and exposed surfaces of the walls of any interior light court whose area exceeds eight hundred square feet shall be as herein specified for outside court walls.

ROOFS.

Section 39. Rafters in buildings of Class "C" shall be placed not more than twenty inches apart from center to center, and shall be covered with boarding not less than one inch thick. All roofs shall be covered with metal or with felt and asphaltum covered with gravel or with other fire-resisting composition.

ROOF SPACES.

Section 40. The space between the ceiling of the upper story and the roof in the buildings of Class "C" shall be divided by tight partitions of one-inch redwood, into sections each having an area not exceeding two thousand five hundred square feet. All openings in said partitions shall have doors of similar construction and self-closing.

CORNICES AND APPENDAGES.

Section 41. Every cornice, gutter, eave or parapet on any building of Class "C" shall be made of incombustible material. Every metal cornice shall have riveted joints, and shall be supported by heavy steel brackets, properly braced and capable of sustaining at each extreeme outer point a load of not less than three hundred pounds. Such brackets shall not be placed more than two feet six inches apart from center to center, and shall be thoroughly anchored into the masonry wall and to the roof, and the top member of each bracket shall be carried through the masonry to the inside thereof, and be properly anchored into the wall. The roof or covering of any cornice may be sheathed with wood, provided that such sheathing shall be entirely covered with metal; or, where composition roof is used, it may extend within six inches of front edge of cornice and said space of six inches shall be covered with metal, and the fire wall shall extend solidly to the under side of the boarding which forms the top side

of the cornice. No cornice on any building shall exceed in width one inch for every foot in height of the Building.

Appendages in buildings of Class "C", such as skylights, dormer windows, gutters, mouldings, eaves, parapets, balconies, bay-windows, towers, spires, ventilators, turrets and lantern lights, except as in this Ordinance provided, if not wholly fire proof, shall be enveloped with fire proof materials; provided, however, that any of the said appendages that exceed the allowed limit of height for its class, shall be wholly fire proof, and that floors, roof boarding and joists to porches and balconies may be of wood without concealed spaces in any part, and no screens, lattices or other enclosure than an open rail or wire guard shall be permitted on such porch or balcony.

BEARING OF JOISTS AND BOND IRON.

Section 42. The load of the bearing of joists on their supports shall not exceed five hundred pounds to the square inch when the joists are loaded to their maximum load.

Bond iron at least three inches by one-quarter inch shall be placed under each tier of floor and ceiling joists of every masonry building over three stories in height, and run around the entire walls of the building and must be lock-jointed and anchored at each angle.

BOND IN BRICK WORK.

Section 43. The bond in brick work shall be formed by laying at least one course of headers for every six courses of stretchers.

PRESSED BRICK FACING, BOND JOINTS.

Section 44. If pressed brick facing is used, it must be bonded into its backing at every fifth course, or oftener. Bonds shall be established by solid headers or standard metal ties. In the case of piers faced with pressed brick, only solid headers shall be used, but bond stones or iron plates may be substituted for such headers, Pressed brick in all cases must be laid so as to have full bed of mortar under each brick. The mortar used in backing all pressed brick shall have cement added thereto, in the proportion of not less than one-sixth of the bulk of the mortar.

ARCHES AND LINTELS.

Section 45. Every opening exceeding five feet in width in a wall of brick or stone, shall have a good and sufficient arch of stone, brick or terra cotta, well keyed and with good and sufficient buttments, or shall have a lintel of stone, iron or steel of sufficient length, with sufficeint bearing at each end of not less than five inches on the wall. If a wood lintel is used over the inside of any opening, there shall be a relieving arch over the same, and the top edge of such lintel shall be shaped to a curve to fit the under side of the relieving arch, so as to reduce the thickness of such timber at the ends; but in no case shall a wood lintel be used where an opening exceeds five feet in width. All masonry arches shall be of sufficient section to safely carry the superimposed load. Tie rods shall be used where necessary to secure stability. There shall be no cast iron lintel used in an opening exceeding seven feet in width. No wood beam or girder shall be used to support any masonry wall.

BOND PLATES.

Section 46. Every masonry pier exceeding five feet in height and having a load exceeding ten tons to each square foot shall be provided with bond plates of cast iron or stone, extending through the entire section of such pier, at intervals in height of such pier not exceeding one and one-half times the diameter of such pier.

FURRED WALLS.

Section 47. If masonry walls are furred, all such furring shall be provided with fire stops at each floor line and at least one point intermediate between the floors. By furring is meant any fram studding or strips on the inside of any masonry.

CARE OF WALLS IN CONSTRUCTION.

Section 48. During the construction of any building, no wall shall be carried to a greater height than six feet above any other wall of the same structure.

ANCHORS, STRAPS, TIES AND STIRRUPS.

Section 49. In buildings of Class "C" girders shall be anchored to the walls and fastened to each other so as to make a continuous tie from wall to wall. The beams may be united by suitable iron straps or not less than one and one-fourth inches area of section, turned in, spiked or bolted so as to develop the strength of the tie, or may be lapped and spiked together so as to form a continuous tie and the ends of anchors may be in the form of cast plates with lugs turned up into beam and down at least four inches into brick work at a point not more than four inches from outer face of wall, or maybe three-fourths inch anchors as hereafter required for joists. Joist anchors shall be of three-fourths inch round iron at least three feet long, with three-quarter by ten inch "T" head or six by six inch iron washer not less than three-eights inch thick. Such head or washer to be not more than four inches from outside face of wall. All anchors shall go through wall where possible. The inner ends of anchors shall be turned down two inches and shall be securely tied to the beams or joists at the side. Inner ends of joists to be spiked for continuous tie. When joists run approximately parallel with adjoining brick walls, said walls shall be anchored to each tier of joists above first floor with anchors reaching back through or hooking over the fourth joist. Heads and rods to be as described for other joist anchors, but joist to be strutted in such a way as to combine the four joists into a trusswith the heads of strutts close to anchors and the foot of strutts close to cross walls or partition. Anchors shall not be more than six feet apart in all walls and every tier of joists above walls and every tier of joists above first tier.

Steel, wrought or malleable iron stirrups of proper size shall be used to support all header joists from trimmers and all tail joists from headers, in addition to which all joists so hung shall be thoroughly spiked together. Fire walls to be anchored as described under "Fire Walls."

ANCHORS AND TIES FOR STEEL GIRDERS.

Section 50. All steel girders supporting masonry shall be anchored back into the walls and to wood girders connected to same from the interior of the building with anchors extending not less than eight inches into the walls, or not less than four feet into the connecting wood girder. If the connecting girder be of metal, then proper standard connections shall unite the beams and girders, so as to form a satisfactory tie. The anchors from steel or iron girders to wooden girders shall be not less than three feet on the wood, and shall be turned down not less than two inches into the wood at the end and shall be securely fastened. When the wood girder is of less than eight inches, vertical height, the size above specified for the anchor may be reduced one-half in all its parts.

RECESSES IN WALLS.

Section 51. Recesses for stairways and elevators may be left in the walls of buildings, but in no case shall the walls be of less thickness than the walls of the fourth story, unless reinforced by additional tiers with iron or steel girders, properly and securely anchored to the walls on each side.

Recesses for alcoves and similar purposes shall not have less than eight inches of masonry at the back of such recesses, shall not be more than eight feet wide, and shall be arched over or spanned with iron or steel lintels, and not carried up higher than eighteen inches below the bottom of the beams of the floor next above, nor shall any recess be made nearer than six feet to any other recess in same wall.

PIPES IN WALLS.

Section 52. No recess for any pipe shall be made in a sixteen inch party or division wall, nor in any other wall more than one-fourth of its thickness, unless the space between the pipes and adjacent masonry is grouted full with cement mortar. Recesses around such pipes shall be filled up solid for the space of one foot, both above and below each tier of floor or roof joists. There shall be no pipes of any description between any metal column and its covering of fire proofing material.

HOLLOW WALLS.

Section 53. The hollow space in walls of hollow concrete or terra cotta blocks shall be counted with the solid parts, provided that such walls shall be able to bear a safe load of twelve tons for each square foot of sectional area. Such walls shall be of the thickness elsewhere herein required for brick or stone walls.

STAIRWAYS.

Section 54. Buildings of class "C" shall have one main stairway, not less than four feet wide from first to highest story, but in no case shall there be less than two stairways from the top floor to the second floor in any building having more than six thousand square feet area to each floor; and every building shall have at least one stairway removed not less than ten feet from any elevator shaft or open well hole, and one stair way to the roof. Stairways from the first story to any basement or portion thereof occupied only for storage or for the maintenance of service for the buildings, shall be closed at some point with a tight partition and door, containing no glass other than wired glass not less than one-fourth of an inch thick.

CELLAR CEILINGS.

Section 55. In all buildings of four stories or more the ceilings of every cellar or lowest floor, when the beams are of wood, shall be lathed with metal lath and plastered.

FIRST STORY FIREPROFFING.

Section 56. In buildings of Class "C" more than two stories high, when the upper stories are in whole or in part divided into rooms intended for office or lodging purposes, the under side of the second floor joists and soffits of the first story stairs, together with all studding of furred walls and partitions of the first floor shall be covered with sheet metal or lathed with metal lath and plastered.

DOUBLE FLOORS.

Section 57. All buildings of Class "C" over two stories in height, shall have double 7-8 inch floors with two thicknesses of asbestos paper between them.

CONNECTION OF BUILDINGS OF CLASS "D".

Section 58. The studding of all outer walls and bearing partition in buildings of Class "D" must conform in size and spacing to the following table, sizes and distances being given in inches, to wit:

No. Stories in Building	No. Story on which Studding is Situated.	Size Studding.	Distance from Center to Center of Studding
1 to 2	1 and 2	2x4 in.	16 in.
3	1	2x6 in.	16 in.
3	2 and 3	2x4 in.	16 in.
4	1 and 2	2x6 in.	16 in.
4	3 and 4	2x4 in.	16 in.

Two-inch by three-inch studding may be used in any one-story building where the floor surface is not over one thousand superficial feet and the story not over ten feet in height. No studding of any size described in the foregoing table shall extend over more than thirty feet in vertical height of any wall. Where any one size of studding extends over more than thirty feet in vertical height the cross section of the studding shall be increased four square inches for each additional ten feet or fraction thereof, vertical height, and the studs shall be placed not exceeding sixteen inches from center to center.

Non bearing partitions in framebuildings two stories high may be 2x3 inch studding, and this size may be used in the two upper stories of frame buildings three or four stories high. The interior non-bearing partitions of the first story in frame buildings three stories high, and those of the first and second stories in frame buildings four stories high must be of not less than 2x4 inch studding.

If by reason of a sloping site there be one or more stories below the first story, the studding of non-bearing partitions therein must be two inches wider than those of the first story. That story having its floor nearest on a level with the natural level of the ground at its highest point next the building to be considered the first story.

Every exterior wall and interior partition of each story shall be braced diagonally in each direction with two inch braces of the full width of the studs, and such braces shall be placed at intervals not exceeding twenty-five feet in any wall or partition over twenty feet long.

Every building exceeding two stories in height shall be sheathed solidly with sheathing not less than one inch thick, put on diagonally and nailed with two nails at every place of contract with studding.

In every building exceeding three stories in height, each tier of studding shall be framed separately, having double plates at the top of each tier. The bottom of such studding shall extend down to the plate of the tier of studding below. An intermediate story may be carried on one inch by four inch ribbon or girt, gained into the studding. In every building of Class "D" the studding shall be doubled around every opening in any partition, and the wall above every opening shall be trussed wherever required to preserve the uniform strength of such wall. Every opening in a floor for a stairway or any other purpose, shall have the thickness of the trimmer and header joists increased so as to preserve the uniform strength of the floor. All roofs shall be braced in every direction, and the roof rafters of every

building over one story in height shall not be less than 2x4 inches, And in every building over three stories in height the same shall be not less than 2x6 inches. In every one story building the roof rafters shall not be less than 2x3 inches.

FOUNDATIONS.

Section 59. Cellar and foundation walls in buildings of Class "D" which are not over one story in height, shall not be less than eight inches thick and not more than seven feet high. Buildings of Class "D" over one story in height shall have masonry foundations not less than eight inches thick nor less than eight inches high, and if such wall is over three feet high the same shall be not less than twelve inches thick. Buildings over two stories in height shall have foundation walls not less than twelve inches thick, if such wall is not more than ten feet high, and each successive ten feet or fraction thereof below the top ten feet shall be four inches thicker than the section next above, but no such wall shall be less than 15 inches high. Each such wall shall have a footing not less than 75 per cent wider than the section of wall resting upon it. Depths of foudations shall not be less than as specified in the following schedule:

For two-story buildings, not less than one foot below natural surface of ground.

For three and four-story buildings, not less than two feet below natural surface of ground.

EXTERIOR PIERS OF CLASS "D" BUILDINGS.

Sections 60. No piers shall be used for any exterior wall in a building more than one story in height.

INTERIOR MASONRY OF CLASS "D" BUILDINGS.

Section 61. Where piers are used under any interior portion of a building they shall not be less than eight inches square for one-story buildings, and shall be four inches larger in each direction for each additional story in height. The footings for every wall or pier shall have an area which shall conform to the rules given for the bearing values of ground set forth in Section 126 of this Ordinance. All piers must have a redwood pad of two-inch stock or a cast iron pad, to cover its entire surface, bedded in mortar, level every way.

ROOF SPACES.

Section 62. Roof spaces in buildings of Class"D" shall be subdivided as hereinbefore provided for buildings of Class "C".

FLOORS AND STAIRWAYS.

Section 63. Class "D" buildings, four stories in height shall have double floors.

Buildings of Class "D" other than dwellings, shall have stairways conforming to the requirements for buildings of Class "C".

SKYLIGHTS.

Section 64. All skylights on roofs in buildings of Class "D" constructed at an angle less than 22½ degrees, not enclosed by a substantial railing at least three feet high, shall be protected by screens of No. 10 wire, with meshes not more than one and one-half inches square, secured to the sash at least four inches above the glass. If wired glass not less than one-fourth of an inch thick is used the wire screens may be omitted.

FACTORY BUILDINGS.

Section 65. All factory buildings of Class "D" more than two stories in height shall be of post and girder construction and the roof covering shall be as hereinbefore provided for buildings of Class "C", or may be constructed of corrugated iron.

HOTELS.

Section 66. In buildings of Class "D" more than two stories in height, used or designed to be used as hotels, as defined in this Ordinance, all corridors, hallways and the under side of all stairways shall be metal lathed and plastered.

STIRRUPS.

Section 67. In every building of Class "D" exceeding three stories in height, steel, wrought or malleable iron stirrups of proper size shall be used to support all header joists from trimmers and all tail joists from headers, in addition to which all headers shall be thoroughly nailed to all trimmers and all joists to headers at the connection of the same.

GENERAL PROVISIONS.
BRIDGING AND FIRE BLOCKING.

Section 68. All wood joists shall have one row of 2x3 inch cross bridging for each ten feet of span or fraction thereof.

All spaces between joists shall be blocked at each bearing partition or girder with blocks of not less than two inches thick and of the full height of joist.

Each and every stud partition shall have two-inch bridging the full width of studs at floor and ceiling and once between floor and ceiling.

WOOD BEAMS, GIRDERS AND COLUMNS BEARING OF WOOD COLUMNS.

Section 69. Every wooden column shall have an even bearing through its cross section, and shall be of straight-grained timber. There shall be no wood work extending below the surface of the ground of basement floor. Every column over six inches by six inches of cross section shall rest on a metal base plate, which shall be raised above the basement floor. Where any wooden column passes through a floor there shall be a metal cap provided to support the beam at such floor, and the column from the floor above shall pass through the girder and rest directly on the metal cap of the column below. Girders resting at each side of the column shall be secured together with proper metal anchors and straps.

STAIRWAYS TO BASEMENTS.

Section 70. Every basement used for the exhibition and sale of goods at retail, shall be provided with a stairway at least five feet in width for every five thousand square feet of area or fraction thereof in such basement. Such stairways shall be without winders and shall have a handrail on each side and shall be as far removed from each other as possible and with proper aisles of not less than the full width of stairways, without obstruction, connecting therewith.

BASEMENT PIPE INLETS.

Section 71. The cellar or basement of any store, warehouse or factory shall have through its ceiling a pipe inlet with cover flush with the floor above. Said pipe inlet shall not be less than eight inches in diameter and shall be kept free from any obstruction.

Where the cellar or basement is more than fifty feet wide there shall be two such inlets in width of room and those shall be repeated for every eighty feet in depth or fraction thereof.

UNDERPINNING WALLS.

Section 72. All walls used for underpinning any building shall be of masonry four inches thicker than the wall they support. Mortar used in underpinning shall contain not less than one part cement to four parts of sand and where brick are used they must be hard burned and well formed.

STANDARD DEPTH.

Section 73. All chimneys and flues hereafter constructed shall be of brick or stone; their enclosing walls shall not be less than four inches thick and except in dwellings, flats, apartment houses and tenement houses, shall, if less than eight inches thick, be lined on the inside with well-burnt clay or terra cotta pipe not less than one inch thick. Said lining shall start from the bottom of a flue or the throat of a fire pla ce, be continuous to the top of the flue, and be built in first and bricked around as carried up. Flues where lining is not required by this Ordinance shall be smoothly plastered for the entire height on the outside except above roof. No smoke flue shall be less than $7\frac{1}{2}$ by $7\frac{1}{2}$ inches in the clear and such sized flue shall have but one inlet; for two inlets the flue shall be not less than $7\frac{1}{2}$ by $11\frac{1}{2}$ inches in the clear; for three inlets not less than $7\frac{1}{2}$ by $15\frac{1}{2}$ inches in the clear, and for a larger number of inlets the size shall be increased in the same proportion. Flues larger than two hundred square inches and less than five hundred square inches area shall be surrounded by walls not less than eight inches thick; flues larger than five hundred and less than one thousand square inches area shall be surrounded by walls not less than twelve inches thick to a height of fifteen feet above the inlet, and eight inches thick the remaining height; walls of flues larger than one thousand square inches shall be proportionately increased in size and shall be lined with fire brick for at least twenty feet above the inlet.

The inside four inches of all boiler flues for boilers of over twenty-five horse power shall be of fire-brick laid in fire mortar for a distance of twenty-five feet in any direction from the source of heat. All chimneys and flues shall extend at least four feet above any flat roof, and if the chimney of flue projects through a pitched roof at or near the ridge or peak of the roof such chimney or flue shall project at least one foot above said ridge or peak of roof. If the chimney or flue pierces the roof at the eave or on the slope of roof, it shall extend above the highest point where it pierces the roof, at least five feet, measuring at center of chimney on the line of the highest slope of roof.

FIREPLACES.

Section 74. All fireplaces and chimney breasts where mantels are placed, whether intended for ordinary fireplace uses or not, shall havw trimmer arches to support the hearth; arches shall be of brick, stone, burnt clay or concrete, at least twenty inches wide measured from the face of the chimney breast and they shall not be less than the width of the chimney breast. Wood centers shall be removed from under trimmer arches and no timber shall be placed under any fireplace or hearth. Hearths shall be of brick, tile, stone, or cement.

Fireplaces shall have arched heads with an iron arch bar over the top of the opening not less than one-quarter by two and one-half inches, turned at the ends two inches in each side of chimney breast, so as to make a perfect bond for arch. All fireplace openings where furred with wood on face shall be surrounded by a brick rim eight inches wide, projecting four inches, bonded into brick work. The fire backs and jambs of all fireplaces shall not be less than eight inches thick, of solid masonry. When a grate is set in a fireplace a lining of fire brick at least two inches thick shall be added to the fire back, unless soapstone, tile or cast iron is used, and filled solidly behind with fireproof material.

No mantel or other wood work shall be exposed back of a summer piece; the iron work of the summer piece shall be placed against the brick or stone work of the fireplace. No fireplace shall be closed with a wooden fire board.

Pipes for gas logs or gas grates shall only enter at sides or through the brick work.

GAS GRATES AND GAS LOGS.

Section 75. Every opening for a gas grate or a gas log shall be surrounded by brick work on all sides and over top at least eight inches thick, and provided with, and carefully connected to a flue not less than three by twelve inches, which flue shall be formed of galvanized iron, joints lapped, riveted and soldered, and the whole enclosed in similar pipe of a size to leave at least one-quarter inch air space all around between the two pipes, and the outer pipe shall be covered with three thicknesses of asbestos paper, said paper to be not less than ten pounds to one hundred square feet. This pipe to be carried up and out through the roof.

INSTANTANEOUS HEATERS.

Section 76. Every instantaneous heater shall be provided with a vent not less than three inches in diameter, extending clear through and at least twelve inches above the roof, with a "T" connection at the top; and around every such vent at all places not exposed there shall be a galvanized iron sleeve extending the full length of the concealed portion with a clear air space of not less than one inch surrounding the vent, provided, however, that such vent pipe may open into airshafts or flues, provided the walls of such airshafts or flues are built entirely of stone, brick or concrete.

SMOKEPIPES.

Section 77. Smokestacks of iron or steel may be used in connection with boilers and coffee roasters, provided same are not nearer than twenty inches to any wood work where passing through floors, ceilings, roofs or partitions, and are protected with a solid metal jacket twelve inches from the stack extending above and not less than twelve inches below the joists, and have a metal umbrella to cover the roof opening high enough above the same to permit a free vent. Any wood work or enclosure of such stack within four feet thereof, other than masonry or tile, shall be metal lathed and plastered or have equivalent protection. Such stacks on the outside of a building shall not be nearer than eighteen inches to any wood work or nearer than twelve inches to any wood work or wood lath and plaster, protected with metal extending two feet on each side of such stack.

CHIMNEYS TO BE EXTENDED AND CLEANED.

Section 78. If the Building Inspector deems any chimney unsafe to any adjoining or adjacent building, said chimney shall be carried up four feet above the extreme height of said building; and if an extension of iron pipe is deemed unsafe by said Building Inspector, such extension shall be of brick or of cotta pipe.

The owner or occupant of any building shall cause the chimneys thereof to be swept as often as may be required to keep same clean.

HEATING FURNACES.

Section 79. The top of every furnace set in brick shall be covered with sheet iron and brick supported by iron bars, with at least two inches of sand on top of brick, so constructed as to be perfectly tight, The top of every portable hearing furnace or smokepipe shall be not less than two feet from the under side of nearest joist or girders, excepting where said joist or girders are protected by metal furring strips one ahd one-half inches deep and metal plates or plaster and metal lath; but in no case shall the top of the furnace or smokepipe be nearer than fifteen inches to the under side of the nearest joists or girders. Such metal protection or plaster above such furnace or smokepipe shall extend not less than one foot each side of such smokepipe and two feet on all sides of such furnace. Every furnace used for heating purposes shall be set on a masonry floor, and there shall not be any wood work , or wood lath and plaster, within two feet of such furnace, unless said wood work or wood lath and plaster is protected by metal furring one and one-half inches deep and metal plates or plaster on metal lath, and in no case shall it be nearer than fifteen inches to either smokepipe or furnace.

Where petroleum or any product of petroleum is used for fuel for a furnace, the said furnace shall be sunk in a concrete or masonry pit, with a concrete floor sunk not less than six inches below the surrounding floor level; such pit to be at least two feet on all sides larger than the furnace.

In no case shall the smokepipe from a furnace enter the same flue to which the exhaust from an automatic gas water heater is connected.

FURNACE PIPES, BOXES AND FITTINGS.

Section 80. All concealed wall pipes, register boxes and fittings, shall be thoroughly covered with two thicknesses of eight-pound asbestos paper cemented to same and after being placed, all points shall be covered in the same manner.

All concealed wall pipes and all first floor side-wall boxes shall be provided with suitable boots extending to the under side of floor joists, and all joists between same to be tightly fitted together and well covered and cemented as above.

The boots at the bottom of all risers and side-wall register boxes shall be attached at the time said risers and boxes are placed in the building.

All wall pipes to have full capacity at all points, with no square bends. Advantage shall be taken of all available space including lath, plaster and baseboard, for inlets or throats of side-wall register boxes on first floor.

STEAM PIPES.

Section 81. Steam pipes shall not be placed within two inches of any timber or wood work, unless the timber or wood work is protected by metal; then the distance shall not be less than one inch.

All steam pipes passing through floors, ceilings, or lath and plaster or wood partitions, shall be protected by a metal tube passing entirely through said floors, ceilings or partitions, one inch larger than the pipe, having a metal cap at the floor.

All pipes or ducts used to convey heated air shall be of metal or other incombustible material.

Pipes used for conveying steam under high pressure, shall in no case be less than eight inches from any wood work, unless protected by magnesia or equivalent pipe covering at least one inch thick, when the distance may be not less than two inches.

All steam pipe coverings shall consist of incombustible materials only.

NOTICE AS TO HEATING APPARATUS.

Section 82. Where hot water, steam hot air or other heating appliances or restaurant or hotel ranges are hereafter placed in any building, due notice shall first be given to the Building Inspector by the person or persons placing the same.

FIRE DOORS AND SHUTTERS.

Section 83. (A) Exterior Openings: Every exterior window and opening in buildings within Fire District Number One of the City of Torrance that overlooks any adjoining building or is within thirty feet of the wall of any opposite or diagonal exposed building other than a blank wall, shall have metal covered shutters or doors, constructed and arranged as specified in this section, or in lieu thereof, may have frames and sash of metal glazed with wire glass not less than one-quarter of an inch thick, no pane in which shall be larger than twenty-four by thirty inches.

Rolling iron or steel shutters may be used on the first story only, and shall be counterbalanced so as to be readily opened from the outside by firemen.

All shutters or doors opening upon fire escapes, in at least one row vertically above the first story, shall be so arranged as to be readily opened from the outside by firemen.

(B) Communicating Openings: Opening through exterior, division, or party walls whereby communication is made with an adjoining building or room, shall not exceed eight feet in width or be more than two in any one story, and shall have metal-covered fire doors, constructed and arranged as specified in this section hereof, on each side of each such opening.

(C) Construction: All fire doors or shutters shall be constructed in conformity with the following specifications: doors and shutters shall be constructed of redwood, two thicknesses of matched boards not over six inches wide at right angles to each other, or crossing diagonally, nailed with wire nails clinched and securely covered with good quality tin on both sides and edges; sheets to be 10x14 inches in size, put together with tin roofers' locked joint and securely nailed; the nails to be driven inside the lap and the joints hammered down over the nail heads. No solder shall be used. The hinges, bolts and latches shall be secured or fastened to the door or shutter after the tin has been nailed on. Sheet iron shall not be used. Doors shall never be less than two inches, nor shutters less than one and one-half inches thick.

Hinges and hangers shall be of strong wrought iron and fastened to the door or shutter with bolts and nuts. Latches shall be so arranged on shutters that they can be opened from either side.

Swinging doors and shutters shall extend at least three inches over the masonry at sides and top of door or opening, and one and one-half inches below top of sill, or, they may close into the opening, provided the wall be rabbetted three inches at the top and sides and one and one-half inches at the bottom to receive the same.

All sliding doors shall extend at least three inches over the masonry at sides and top of doorway or opening, and one and one-half inches below top of sill. Sliding doors may run at the bottom in a channel iron so set as to give the door a bearing of one and one-half inches below top of sill.

Sills shall break the floor and rise at least one inch above floor level to prevent passage of flame and smoke, and be constructed of masonry. Wood sills shall not be used.

Rail or track must be heavy enough to withstand heat without warping, and may be made of angle or channel iron, and both rails must be secured to wall whenever possible by bolts passing through the wall; otherwise "expansion" bolts shall be used. When channel or angle iron cannot be obtained the track may be made of common flat bar steel three-eights inch to one inch thick and four inhhes wide, bolted through the wall with three-fourth inch bolts. The distance of track from the wall can be regulated by washers.

Binders shall be placed so as to prevent the door from rolling off the track at either end, and also hold it in position when closed.

FLOOR AREA OF BUILDINGS.

SEction 84. In buildings of Class "C", if the distance between masonry exterior, party or division walls exceeds twenty-five feet, there shall be masonry supporting walls, or girders supported as required by this Ordinance; and no single floor area between exterior, party or division walls of the thickness specified in this Ordinance shall exceed 7500 square feet.

Provided, however, that in case the foregoing described buildings are completely equipped with a system of automatic sprinklers in a manner approved by the Board of Fire Underwriters of the Pacific, the area between such exterior, party or division walls may be increased 33 1-3 per cent.

No wall or part of wall in any existing building, or in any building hereafter erected, shall be removed to produce a larger area than those named above.

TIMBER DETAILS.

Section 85. The header beam carrying the tail beams of a floor, and supporting the trimmer arch in front of a fireplace shall be not less than twenty inches from the chimney breast. Every girder or truss shall have a bearing of not less than eight inches, and joists not less than four inches, on masonry walls. All headers and trimmers shall be of such size that the strength of the floor shall be uniform. Where joists or beams rest on masonry walls the ends of such joists and beams must be beveled at least three inches at the ends resting on such walls.

BOILER ROOMS.

Section 86. All walls surrounding a boiler room shall be of masonry or terra cotta for its full height, and the ceiling of the entire boiler room shall be plastered on metal lath. Every boiler room shall be provided with a sump hole or blow-off chamber, for the purpose of blowing off the steam from the boiler, independent of the sewer.

Any opening into a boiler room from the interior of the building shall have a door or shutter constructed as specified in Section 83 of this Ordinance, arranged to close automatically, and where oil is burned every doorway shall have a masonry or terra cotta sill rising not less than eight inches from the floor. No wood shall be used in the construction of the floor of any boiler room.

In buildings of Class "C" and "D" there shall be a clear space above the boiler of not less than five feet, and above the breeching of not less than two feet, provided that a sheet of No. 18 iron shall be suspended not less than two inches from the ceiling, over the one foot beyond breeching.

Every boiler room shall be provided with a stand pipe not less than one and one-half inches in diameter, with at least twenty-five feet of hose of not less than one and one-half inches in diameter attached thereto.

DRYING ROOMS.

Section 87. The floor under every drying room in a laundry shall be of masonry or tile. No part of such drying room shall be nearer than three feet to any partition constructed in whole or in part of wood. Steam pipes in such rooms shall not be nearer to wood work than three inches, and shall be protected from contact with inflammable materials by wire netting. Hanging racks in drying rooms shall be of metal.

FLOOR AND ROOF LOADS.

Section 88. Floors shall be constructed to carry not less than the following live load per square foot with a factor of safety of four:

Warehouses, wholesale houses and heavy factories, 250 pounds.

Stores, 150 pounds.

Assembly halls, dancing halls and corridors of public buildings, including hotels, 125 pounds.

Apartment houses, flats, hotels and hospitals, 60 pounds.

Dwellings, 50 pounds.

Office buildings, 75 pounds.

Roofs, 40 pounds.

FLOOR LIGHTS.

Section 89. Floor lights, used for transmission of light to floors below, shall be constructed of metal frames and bars or plates; and if any glass therein measure more than sixteen square inches the glass shall be provided with a mesh of wire either in the glass or under the same, and the floor lights shall be of the same proportional strength as the floors in which they are placed.

PROJECTIONS.

Section 90. No bay window or balcony shall be allowed to project over any public street or alley within Fire District Number One, except that a balcony constructed of wrought or cast iron, stone or terra cotta may project not more than three feet over any street or alley if capable of sustaining a load of two hundred pounds per square foot; and outside of Fire District Number One, no bay window or balcony shall project more than three feet over any street or alley or be less than twelve feet above the sidewalk. No such projection shall be allowed over any street or alley less than thirty feet wide.

There shall be no projection at the base of any building beyond the building line into the street.

STRUCTURES ABOVE ROOFS.

Section 91. No structure built partly or wholly upon or above the roof of any building shall project above the highest point of the roof more than seven feet, and every outside wall of the same (excepting in Class "D" buildings) on any street or party line shall be of masonry. In buildings of Class "C" walls other than masonry walls shall be lathed with metal lath on both sides and plastered, and all ceiling on the interior of same shall be plastered on metal lath. The total area of such roof structures on any building shall not exceed two hundred square feet for each five thousand square feet of area of the upper floor of such building. The roof of every roof structure shall be constructed in the same manner as the roof of the main building.

ROOF DRAINAGE.

Section 92. Every building within Fire District Number One shall be provided with metallic water conductors, of sufficient capacity to convey all surface drainage from the roof to the street or alley gutter. The extension of any gutter from the building to curb shall be below the surface of the sidewalk, and no such conductors shall project beyond the street line of the building.

TANKS.

Section 93. Tanks having a capacity of more than five hundred gallons placed on the roof or above the roof of any building of Class "C" shall be supported on iron or steel beams of sufficient strength to safely carry the same, which beams shall rest at both their ends on masonry walls or on iron or steel girders or on iron or steel columns or piers of masonry. Such tanks shall have through or near the bottom thereof a short pipe or outlet not less than three inches in diameter, fitted with a suitable valve, having a lever or wheel handle so that firemen or others can readily discharge the contents from the tank. Where practicable such tanks shall be placed at one corner on the roof of the building and shall not be placed over or near a line of stairs. Covers on top of tanks placed on roofs, if of wood, shall be covered with metal.

EXCAVATIONS FOR BUILDINGS.

Section 94. An excavation must not be left longer than necessary, and in no event longer than thirty days without proceeding with the walls and superstructure. It shall be the duty of the Building Inspector to notify the owner or builder of the violation of the above requirement by written notice, and the person receiving such notice is required to proceed within forty-eight hours with the walls and superstructure of the building for which a permit has been granted, or else to fill or otherwise safeguard the excavation as the Building Inspector may in writing direct.

VENTILATION.

Section 95. Every apartment or room containing a water closet or urinal shall be ventilated by means of a window opening directly into the open air, except that where impracticable they may be ventilated by means of ducts carried into the open air as the Building Inspector may approve.

UNSAFE FIXTURES.

Section 96. Whenever, in the judgement of the Building Inspector, any building or structure, or any appurtenance or fixture thereto, or any chimney, smokestack, stove, oven or furnace, or anything connected with such building or premises is defective or unsafe so as to be liable to cause fire, the said Building Inspector shall give the owner, or person having control of such property, notice in writing, requiring him, within five days, to make such changes, alterations, or repairs as may be necessary to render the same safe, and any person refusing to comply with said notice shall be deemed guilty of a violation of this ordinance.

VENEERING.

Section 97. No veneering of brick, stone or terra cotta on any frame building shall exceed 25 feet in height from the curb level. No veneering shall be less than four inches in thickness and must be built on a solid foundation wall not less than twelve inches thick. All veneered surfaces must be solidly boarded with inch lumber.

RETAINING WALLS.

Section 98. Area walls or other retaining walls shall be of masonry or concrete, proportioned to their height, length and load, and to the character of soil, according to the best architectural practice, and to the satisfaction of the Building Inspector. When built of brick they shall be laid in cement mortar composed of one part of cement to four parts sand.

OFFSETS.

Section 99. Where an offset is used for reducing the size of a chimney or for corbelling out a wall to receive a joist, it shall not exceed one inch for each course.

OPENINGS IN SIDEWALKS.

Section 100. There shall be no permanent openings in any sidwwalks extanding beyond the property line except such openings as are herein expressly authorized.

There may be such an opening, provided it is covered with metal sidewalk trap doors capable of sustaining, without perceptible deflection, a load of 400 pounds to each superficial foot ov of area thereof, placed simultaneously over the entire area of such doors, the outer edge of which door shall not be placed within two feet of the outside edge of the sidewalk curb, and the inner edge of which door shall not be more than seven feet, sixinches from the outer edge of the sidewalk curb. Every such sidewalk door shall be provided with metal guards for the protection of the public when open. There may also be openings through sidewalks for admittance of fuel. Every such opening shall be protected with a metal cover, of strength equal to that herein specified for sidewalk trap doors. All doors or openings in sidewalks protected with metal covers shall have such covers flush with the walk. The upper surfaces of all metal coverings on openings in sidewalks shall be roughened. All parts of sidewalks including illuminating tile or other structural parts shall be capable of sustaining a load at all points simultaneously equal to four hundred pounds for each superficial foot of the surface thereof. There shall be no permanent area openings or openings covered by gratings of any description in any sidewalk.

OPENINGS IN ALLEYS.

Section 101. Gratings with bars at right angles to the course of the alley may be used in alleys, providing same extend not more than two feet beyond property line, also that they be capable of sustaining a load of 400 pounds to the square foot, as provided in the foregoing section; also that the bars of same be spaced not more than one inch apart, and that their upper surface be on a line with alley grade. Every sidewalk or alley opening must, if not provided with metal railings, when open, have an efficient attendant to guard the opening, or alley. Every existing side walk or alley opening not built in accordance with this Ordinance shall be made to conform thereto, at the order of the Board of Trustees of the City of Torrance.

AWNINGS.

Section 102. All movable awnings hereafter erected shall be elevated at least eight feet at the lowest part thereof, above the top of the sidewalk, provided that a hanging border may drop vertically to within not less than seven feet from the sidewalk. They shall be supported without posts by iron brackets, or by an iron framework attached firmly to the building, so as to leave the sidewalk wholly unobstructed thereby. Wood or iron awnings of a permanent nature will not be allowed except that metal canopies may be used over the main entrances to hotels or theater buildings. The roof of such canopies may be of said metal or of wire glass supported in metal frames. The lowest point of any portion, including the supports thereof, of such canopies shall not be less than eight feet six inches clear above the sidewalk.

The canopies shall be supported with chains or metal supports, properly secured to the building independent of the sidewalk.

All supports, framing and all constructive parts of the canopies shall be sufficient to sustain six times its own weight or strain without breaking, and shall be tested at any time when requested by the Building Inspector. Proper provision shall be made to carry water from the canopies through proper conductors to the sidewalk gutter; such conductors shall be pla ced within the wall of the building and below the surface of the side walk.

HOSPITALS, SANATORIUMS AND ASYLUMS.

Section 103. Hospitals, sanatoriums and asylums more than two stories high shall be of Class "A" or "B" construction, and if more than four stories high, shall be of Class "A" construction. The walls and ceilings of every corridor of each floor shall extend from one exterior wall to another, and every such corridor shall have a door and fire escape at each end.

Every fire escape in a building of this class shall consist of an iron stairway extending from the ground to the top story having a landing at each story communicating with the said corridors; the treads of said stairway shall not be less than eight inches wide and the risers shall not be over seven inches high.

Each iron stairway shall have a substantial iron railing at least three feet high on its exposed sides. From the landing at the top story a metal ladder shall extend to the roof, as provided under heading of "Fire Escapes."

Where any hospital, sanatorium or asylum is built on the pavilion system, consisting of two or more buildings connected by corridors, there shall be fire doors at each end of every corridor connecting buildings, the said fire doors at each end of every corridor connecting buildings, the said fire doors to be constructed and arranged in accordance with Section 83 hereof.

HOTELS.

Section 104. Buildings used or designed to be used as hotels as defined in this Ordinance, of over three stories in height, shall be of Class "A" or "B" construction; if over four stories in height, shall be of Class "A" construction.

SPECIAL REQUIREMENTS FOR CHURCHES AND OTHER PUBLIC HALLS.

Section 105. (a) Any room used for the installation of a heating or ventilating plant or for any machinery whatever in a building containing a church, lecture room, music hall or other public hall, shall have brick walls surrounding the same and extending from floor to ceiling. The ceiling of any such room shall be lathed with metal lath and plastered and all openings through its walls into any other part of the building shall be protected by fireproof doors as specified in Section 83 hereof, or by metal sash with wire glass in frames of metal, or covered with metal.

(b) In said buildings the under side of every stairway and gallery, both sides of every vestibule wall and the ceiling of every vestibule, shall be lathed with metal and plastered; also if there is a basement under any audience room, all walls, partitions and ceilings, not of masonry, in such basement shall be lathed with metal lath and plastered.

(c) In said buildings, all seats and pews shall be arranged so that there shall be not less than thirty-two inches from the back of one seat to the back of the next seat parallel thereto in a horizontal line. Where the seating capacity of a floor is not more than five hundred persons the aggregate width of the aisles thereof shall not be less than ten feet; and the aggregate width of such aisles shall be increased one foot for each increase of seating capacity of one hundred persons or fraction thereof, in excess of five hundred.

(d) In said buildings no staircase leading to a gallery containing two hundred seats or less shall be less than four feet in width, and same shall be increased twelve inches in width for each one hundred additional seats or fraction thereof in excess of two hundred. There shall be proper hand rails on each side of any stairway leading to gallery or basement. There shall be no windows in any stairway and every landing shall be the full aggregate width of both flights leading to the same, and the depth of such landing or landings shall equal the width of one run of stairs. The minimum head room over any stairway at any point shall be not less than eight feet six inches.

(e) In said buildings the aggregate width of the exits shall be at least 15 per cent greater than required for the aisles, and each gallery shall have an exit separate and distinct from any other exit, direct to the vestibule or street.

AUTOMOBILE STABLES.

Section 106. Where any automobile stable, storage room or garage contains, oil, gasoline or fuel of any character, the floor of such room shall be of fireproof material or may be of wood covered with concrete not less than two inches thick.

TENTS AND CLOTH CONSTRUCTIONS.

Section 107. It shall be unlawful to ereet, maintain or occupy any tent or tent house or other structure of cloth construction within Fire District One, except by special permit of the Board of Trustees.

BUNGALOW CONSTRUCTIONS.

Section 108. The erection of buildings of bungalow construction shall be confined to Fire District Number Two.

USE OF STREETS AND SIDEWALKS.

Section 109. Where any building in Fire District Number One is built flush with the sidewalk there shallbe, during the construction, alteration, demolition, or repair thereof, a temporary canopy at least ten feet above the sidewalk the full width of the front of the building and extending the full width of the sidewalk. Said canopy shall be constructed of two-inch planking with close joints, covering the entire space, supported at least every twelve feet with posts not less than four inches by six inches and girders not less than four by ten inches; planking to have intermediate supports every four feet. The canopy must incline towards the building with a fall of a least one foot, or must have a curb at least twelve inches high on the outer edge. There shall also, be along the center line of such sidewalk a substantial tightly boarded fence extending to the temporary canopy.

No excavation shall be made in that part of any sidewalk lying between its center line and its curb line, unless there shall be a good and substantial temporary walk erected over such excavation. Such walk may be raised not more than four feet above the curb level when provided with steps at each end and a railing three feet high along its edge nearest the street.

Public streets and sidewalks may be partially occupied or obstructed in connection with building operations, as specified in this Ordinance. It shall be unlawful for any person, firm or corporation to occupy or obstruct any portion of any street, alley or sidewalk in any other manner or to any greater extent than is allowed by this Ordinance without first obtaining a permit therefor. Such permit may be issued by the Street Superintendent upon application therefor in writing, and shall be accompanied by the building permit for the building operations proposed. Such permit from the Street Superintendent shall describe in detail the privileges granted when at variance with this Ordinance.

The permission to occupy and obstruct streets and sidewalks for the purpose of building operations is intended only for use in connection with the actual erection, repair, alteration, removal or demolition of buildings, and it shall be unlawful to occupy or obstruct any part of any sidewalk or street unless such building operations in pregress on premises abutting on such part of such street or sidewalk.

It shall be unlawful to use, obstruct or occupy more than one-quarter of the width of the roadway of any street in front of any building for the storage of building materials, or for any other purpose in connegtion with any building operations. In case there is a street railroad track upon any street, no part thereof within four feet of any such track shall be so used, obstructed or occupied. It shall also be unlawful to use, obstruct or occupy any portion of any sidewalk, street or alley for the storage of any material or article not intended for immediate use in connection with building operations upon the premises abutting upon such portion of such street or sidewalk.

It shall be unlawful to fail or neglect to have at least one-half of width of any sidewalk and not less than ten feet of the width of any alley unobstructed and free of rubbish at all times, without a permit from the Street Superintendent, except that a passage across such space may be used for the carriage of material.

No earth taken from any excavation and no rubbish or material taken from any building shall be stored or deposited either upon the sidewalk or the roadway of any street, and the same must be removed from day to day as rapidly as produced. When any dry rubbish liable to produce dust is being handled, it must be wetted down so as to prevent it from being blown about by the wind.

LIGHTS AT OBSTRUCTIONS.

Section 110. It shall be the duty of every person, firm or corporation using, occupying or obstructing any portion of any street or sidewalk or alley, for the storage of building materials, to display and maintain a red light during the whole of every night at each end of every pile of such material situated in any street, sidewalk or alley.

SCUTTLES AND LADDERS.

Section 111. Every building other than a dwelling house two stories or over in height shall have a scuttle not less than two feet by two and one-half feet with a permanent ladder arranged in a convenient place for access to the roof.

ELEVATORS, DUMB WAITERS AND CHUTES.

Section 112. All passenger elevators shall be enclosed in a shaft having a covered top; said shaft shall extend from the basement floor to at least eighteen feet above the highest floor reached by car or not less than three feet above the roof.

Such shaft shall be of brick, tile, concrete or of wood studs, having fire stops the width of studs and not less than two inches thick at each floor and once between floors; such studs shall be metal-lathed on both sides and plastered three-fourths inch thick or such shaft may be enclosed with wired glass not less than one-fourth inch thick in metal frames and sash.

All doors to such shaft shall be constructed of metal or metal-covered wood, and any glass in doors or shaft walls shall be wired glass not less than one-fourth inch thick in metal or metal-covered sash and frame.

The room containing the elevator machinery shall be of same construction as required for shaft.

Every dumb waiter, chute or other shaft, cutting through from floor to floor, shall be of the same class of construction as required for passenger elevator shafts, or may be of metal or metal-lined where too small to plaster, and all openings to such shafts or chute shall be provided with doors or covers.

If a freight elevator is placed in a shaft the shaft shall be constructed as provided for shafts for passenger elevators. In case a freight elevator is not enclosed, trap doors shall be provided at each floor, which doors shall be automatic, or shall be held open by fusible links and so arranged as to fall shut when link is fused and shall be covered with lock-jointed tin on under side and edge.

Every passenger elevator, car or hoist shall be provided with the proper automatic apparatus to prevent its falling in event of accident. Immediately below sheave beams of elevator there shall be placed a strong metal netting of not less than three-sixteenth inch iron and having mesh not exceeding two inches, supporting on steel angles, and upon such metal netting there shall be a lighter wire netting not exceeding three-eights inch mesh. Every elevator and its carrying beams and cables shall have a capacity of not less than one hundred pounds to the square foot, with a factor of safety of ten. Every such elevator shall be provided with automatic devices which shall stop the car at the top and bottom floors and with automatic safety devices which will bring the cars to a stop in case of excessive speed, or in case of failure of any part of the apparatus.

FIRE ESCAPES AND STAND PIPES.

Section 113. Every building that is already erected, or that may hereafter be erected in the City of Torrance shall be provided and equipped with fire escapes and stand pipes as follows:

Every building more than two stories in height that is occupied, or that is designated to be occupied, by two or more families above the second floor or that is used or occupied or so constructed as to be capable of being used or occupied as a theater, hospital, asylum, seminary, academy, college, hotel, rooming house, apartment house, tenement house, lodging house, factory, mill or manufactory, and every building used or occupied, or capable of being used or occupied, above the second story, for offices, workshop or public entertainments or assemblages, or for school purposes, and every building of whatever nature more than three stories in height shall be provided and equipped with metallic fire escapes, combined with suitable metallic balconies, platforms and railings, firmly secured to the outer walls, and erected and arranged in such a way, and in such proximity to one or more windows of each story above the first as may be necessary to make and render said fire escapes readily accessible, safe and adequate for the escape of the inmates in case of fire, and for the use of the fire department. And all such buildings as above described, which are more than three stories in height, shall have a metallic standpipe in connection with every fire escape required by this Ordinance. Such pipes to be of the size described in this Ordinance. On every such building there must be at least one fire escape connected with every floor above the first floor. Every such building of Class "C" containing more than five thousand square feet of floor area on any floor above the first story shall be provided and equipped with an additional fire escape for every additional five thousand square feet of area, or fractional part thereof, contained in the floor of largest area above the first story, shall be equipped with an additional fire escape for every additional four thousand square feet of floor area or fractional part thereof contained in the floor of largest area above the first story.

SPECIFICATIONS FOR THE ERECTION AND CONSTRUCTION OF FIRE ESCAPES.

Section 114. Buildings of three stories, except as provided in Section 103 hereof, may have fire escapes with vertical ladders from balcony to balcony and from upper balcony to roof. Such fire escapes shall be constructed as follows: The balconies shall not be less than six feet in length and three feet in width. The frame of the platform shall be constructed of wrought iron or steel angles not less than 2½x2½x5-16 inch section, which shall continue entirely around the platform. The angles at the ends of the platform shall continue through the wall and finish on the inside with a threaded 3/4 inch bolt, nut and a 4x4x3/8 inch washer, or may end with an eye-bolt and 12x3/4 inch vertical anchor placed two inches outside of the inner face of the wall.

Flooring of balcony shall be constructed of 2x¼ inch iron or steel slats apaced three inches from centers. These shall be riveted to the side angles and to a 2½x2½x5-16 angle support through center of balcony.

Each balcony shall be provided with a top rail not less than two feet ten inches above its floor. This shall be constructed of wrought iron or steel equal in sectional area to a 2x2x¼ inch angle. The ends of this rail shall be secured to the wall as provided for the frame of the platform. Corner posts of balcony shall be in sectional area equal to the rail and of the same material. Balusters of balcony shall be of iron or steel of sectional area equal to ½ inch square spaced six inches from centers. Each end of balcony shall be braced with a strut of 2½x2½x5-16 inch wrought iron or steel angle, the upper end of which shall be riveted or bolted to the frame of the platform and the lower end securely embedded in the wall with a terminal vertical bearing and anchorage of not less than 16 square inches.

Where balcony exceeds eight feet in length like braces shall be added for each additional four feet. Spacing of braces to be equidistant so far as may be.

All connections of frame must be riveted with two or more 5-16 inch rivets. The opening in the floor of the balcony for the ladder shall not be less than 22x 24 inches. The ladder shall not be less than 16 inches in width. The same to be bolted or riveted to each balcony floor and to the roof of the building. The ladders shall be set parallel with and not less than eight or more than twelve inches from the face of the wall from lowest balcony to top of wall, and shall be braced once between each balcony and once for each six feet of its height above the highest balcony with wrought iron or steel brackets built into or bolted to the wall of the building.

Ladders shall be constructed with two by three-eights inch side rail with rungs of 5/8 inch round, all of wrought iron or steel.

All buildings of more than three stories must be equipped with fire escapes having inclined step-ladders or stairways from balcony to balcony. In such, balcony shall not be less than eight feet long and 42 inches wide, and the opening for stairway not less than 20x40 inches. The stairways shall have stringers and treads ¼x4 inch, all of wrought iron or steel. The treads shall be flanged at either end and twice riveted to each stringer with 5-16 inch rivets. The rise from tread to tread shall not exceed 12 inches, and the run shall not be less than 4 inches to each foot of rise.

The stairways shall have a landing not less than 29 inches wide at either end of each flight, and shall be provided with a hand rail of one inch gas pipe.

All other details of stairway fire escapes to be the same as heretofore specified for fire escapes with vertical ladders, except that the angle iron frame for platform and the center support for flooring shall be 3 inch angle iron where specified 2½ inch for buildings of three stories in height, and except as provided in Section 107 hereof.

Fire escapes on Class "D" buildings must be bolted to floor joists and studding. No lag screws shall be used. Ladders may be shaped around cornice projections of not more than two feet, and must pass through any of greater projection. The opening through cornice to be not less than 22x24 inches.

All parts and details of the construction of balconies, ladders, stairways and hand-rails shall be firmly supported and stiffened so as to be perfectly rigid, durable and secure.

Each balcony shall be tested by the owner or builder thereof at his own expense whenever required so to do by the Building Inspector, with a dead load of one hundred pounds per square foot of floor area. If the balcony shows any weakness in the construction or anchorage it shall be strengthened at once by the owner or builder and made in every way satisfactory to the Building Inspector.

STANDPIPES.

Section 115. Every building of four or five stories in height shall have, outside of the exterior walls or embedded therein, one or more metallic standpipes, at least four inches in diameter, which shall extend from a point four feet six inches above the sidewalk, to and over the roof, and at each story there shall be branches with two and one-half inch gate valves; and there shall be a two and one-half inch Siamese inlet attached to each standpipe four feet six inches above the line of the sidewalk; and an outlet over the roof with two three-inch gate valves with reducers from three inches to two and one-half inches, provided with caps and chains.

Every building of six stories in height shall have, outside of the exterior walls or embedded therein, one or more metallic standpipes at least five inches in diameter, each of which shall have a four-way two and one-half ($2\frac{1}{2}$) inch Siamese inlet attached thereto, four (4) feet six (6) inches above the line of the sidewalk, and at each story there shall be a three (3) inch gate valve, with reducers to two and one-half inches provided with cap and chain; there shall be an outlet at the end of each standpipe, over the roof, which shall be connected with three three-inch gate valves, with reducers to two and one-half inches, provided with caps and chains. All hose connections shall fit the hose connections in use by the Torrance fire department. All standpipes shall be capable of sustaining a hydrostatic pressure of three hundred pounds to the square inch throughout their entire length after same are erected.

On every building where standpipes are required, said standpipes shall follow the line of fire escapes wherever such fire escapes occur.

All standpipes in buildings shall be galvanized, and shall be kept in good order and repair and free from any and all obstructions.

INSIDE STANDPIPES.

Section 116. Inside of every building over two stories in height, except those in Class "A" dwellings and churches, there shall be standpipes extending from a connection with the city water main (such connection to be not less in diameter than that of the standpipes), to above the roof of the building, as follows:

Buildings of three stories in height shall have standpipes of not less than two inches internal diameter; buildings over three stories and not over five stories in height of not less than two and one-half internal diameter, and buildings over five stories in height of three inches internal diameter, Said standpipes shall have a one and one-half inch hose connection on each floor and roof, with sufficient good one and one-half inch hose (and suitable nozzle) attached to reach all points of the floor. Such standpipes and hose shall be located and maintained to the satisfaction of the Building Inspector, and in case the height of the building renders the available water pressure insufficient to throw a reasonable stream, they shall be connected to a tank of not less than one thousand gallons capacity upon the roof of the building in such a manner as to be capable of furnishing a good stream of water for extinguishing fire.

This section shall apply to buildings hereafter erected, also to buildings already erected when the fire risk is, in the judgement of the Board of Trustees and Building Inspector, particularly hazardous, or as provided in Section 15 hereof.

LOCATION OF FIRE ESCAPES AND STANDPIPES.

Section 117. The Board of Trustees and Building Inspector shall have power to determine the location of all fire escapes and standpipes, and the number thereof when not fixed by this Ordinance, and to inspect the same to see that they are properly constructed and maintained, as required by this Ordinance. Before a building permit is issued for any building required to have fire escapes or standpipes, the plans therefor must be submitted to said Board of Trustees and Building Inspector, and the location and number of such fire escapes must be designated by the said officers and indorsed on such plans. If the Board of Trustees and Building Inspector find that any building now existing or in course of construction or hereafter to be constructed does not comply with any of the provisions of this Ordinance in regard to fire escapes or standpipes, they shall give written notice of such deficiency to the owner, lessee or occupant of such building requiring him within thirty days after the receipt of such notice to make such building conform to the provisions of this Ordinance. It shall be unlawful for the owner, lessee or occupant of such building to use or occupy the same after the expiration of thirty days from receipt of said notice unless the same has within that time been made to conform to said provisions of this Ordinance.

PAINTING OF FIRE ESCAPES AND STANDPIPES.

Section 118. All standpipes and fire escapes must be painted with h two coats of approved metallic paint when erected, and where exposed must be painted with a heavy coat of lead paint at least once each year.

FLOOR LOADS.

Section 119. Every floor and every roof shall have a safe bearing capacity, irrespective of the weight of the structural materials therein with a factor of safety of not less than four, as hereinafter specified.

Every warehouse, wholesale house, or heavy factory shall be so constructed as to safely bear over the entire surface of its floors a load of not less than 250 pounds for each superficial foot.

All corridors of public buildings and hotels, also every building used for an assembly hall, a theater, or a church, shall be so constructed as to safely bear over the entire surface of its floors a load of not less than 125 pounds for each superficial foot.

Every store building shall be so constructed as to safely bear over the entire surface of its floor a load of not less than 150 pounds for each superficial foot.

Every lodging house, hotel, hospital, apartment house and every building exceeding three stories in height, when not otherwise specified in this Ordinance, shall be so constructed as to safely bear over the entire surface of its floor a load not less than sixty pounds for each superficial foot.

Every dwelling house not exceeding three stories in height shall be so constructed as to safely bear a load of not less than fifty pounds for each superficial foot of its floors.

Every office building shall be so constructed as to safely bear over the entire surface of its floors a load of not less than seventy-five pounds for each superficial foot.

Every roof shall be so constructed as to safely bear over the entire surface a load of not less than forty pounds for each superficial foot.

SAFES AND MACHINERY IN BUILDINGS.

Section 120. It shall be unlawful for any person, firm or corporation to place any safe exceeding ten cubic feet in size, or 2500 pounds in weight, or any machinery exceeding 2500 pounds in weight, in any part of any building above the basement, without first obtaining a permit therefor from the building inspector. Before issuing any such permit the Building Inspector shall ascertain the bearing capacity

of the floor upon which it is proposed to place such safe, or machine, and if such floor is of the necessary strength to sustain such safe or machine with safety he shall grant such permit, otherwise he shall refuse it.

TEST OF STRENGTH.

Section 121. Before the entire completion of any building the owner of the same shall, at the request of the Building Inspector, make a test of strength wherever the said Building Inspector requires, and after such test, in the event of failure to fulfill any or all of the requirements of this Ordinance, the deficiency shall be immediately corrected. Such tests must be made by the owner of any completed building or sidewalk upon written request so to do from the Building Inspector and any deficiency in strength immediately corrected.

WEIGHTS OF MATERIAL.

Section 122. In computing the weights of walls, floors and materials, a cubic foot of material shall be deemed to have the weight given in the tables of either of the following hand books; Trautwine's "Engineer' Pocket Book", F. E. Kidder's "Architects' and Engineers' Pocket Book," or Haswell's "Mechanics' and Engineers' Pocket Book."

TEST OF MATERIAL.

Section 123. Building materials used shall be subjected to such tests to determine their character and quality as the Building Inspector may direct.

CEMENT.

Section 124. No cement except Portland cement shall be used in building operations. It must be of such quality as will develop a tensile strength of 350 pounds per square inch after one day in the air and six days in water.

CONCRETE.

Section 125. Concrete for foundations shall contain not less than one part of cement to three parts of sand and five parts of clean gravel or broken stone. Ingredients shall be put together by measure and thoroughly mixed.

BEARING CAPACITY OF SOILS.

Section 126. The maximum load allowed upon any square foot of the various kinds of ground shall be as follows: Upon firm gravel or hard clay not less than eight feet below the surface, four tons. Upon soft clay or adobe, not less than ten feet below the surface, three tons. Upon firm gravel or hard clay from three to six feet below the natural surface, three tons. Upon firm gravel or hard clay less than three feet below the natural surface, two tons. Upon sandy loam, one ton. Upon soft clay or adobe, not less than two feet below the surface, one ton.

All footings shall be extended through the surface down to undisturbed natural ground. Wherever wet land or tide land occurs and proper foundations cannot otherwise be secured, piles shall be used and driven in such manner as to secure a safe and durable foundation in accordance with standard practice.

SAFE LOADS OF MASONRY.

Section 127. The safe load on hard-burned brick laid in lime mortar shall not exceed eight tons per square foot, and on same laid in cement mortar shall not exceed fifteen tons per square foot. The safe load on concrete foundations shall not exceed fifteen tons per square foot.

GAs METERS.

Section 128. No gas meter shall be located in the same enclosure with any boiler, hot air heater or hot water heater.

LIGHTS AT EXITS.

Section 129. At each and every exit in any room or building used for the entertainment of the public and having an area of 1000 square feet or more, there shall be placed and maintained a lamp in which only non-inflammable oil shall be used, or electricity upon an independent circuit satisfactory to the Building Inspector. Said lamp or lamps shall be lighted previous to the opening of the doors of such room or building and shall be kept lighted until the audience shall have departed from the premises. There shall be inscribed upon such lamp or lamps the word "Exit" in plain black letters at least six inches high. All existing buildings or rooms of the kind in this section specified shall be made to conform hereto as the Building Inspector may direct.

Whenever the Building Inspector shall find that any building or structure or part thereof, now erected or which may hereafter be erected, is dangerous to persons or property or is unsafe for the purpose for which it is used or is in danger of fire from any defect in its construction or is unsightly or unsanitary or partially destroyed, he shall notify the owner, person in charge or occupant thereof in writing, specifying therein where such building or structure is dangerous, unsafe or defective or that same is unsightly or unsanitary, and in such notice shall require such owner, person in charge or occupant forthwith to remove, demolish or repair the same or to make such alterations as may be necessary to make such structure or building safe, sanitary or sightly and to render the same safe to life and property, and he shall specify in such notice with reasonable certainty the work necessary to such end.

The owner, person in charge or occupant of any such building or structure or part thereof, upon whom notice has been served as herein provided, shall, within five days after receiving said notice, commence to comply with the terms of the same, and thereafter proceed with diligence and dispatch either to remove, demolish or repair the same as in said notice required.

It shall be and is hereby declared unlawful for any person, firm or corporation to use or permit to be used or to maintain or to permit to remain standing or existing any building or structure or part thereof which has been declared to be dangerous to persons or property or unsafe for the purpose for which it is to be used or is in danger of fire from any defective construction or is unsanitary or unsightly, after five days from receiving a notice as aforesaid from the said Building Inspector of said City.

In the event that the owner, person in charge or occupant of any such building or structure or part thereof, upon whom notice has been served as herein provided, shall fail for five days to commence to demolish or remove or repair such building or structure or part thereof as provided for in said notice, the said Building Inspector shall have authority and it is hereby declared to be his duty to immediately and forthwith enter upon such premises and cause the demolition and removal of such building or structure or part thereof which is defective or dangerous to persons or property for any cause above mentioned or unsightly or which is partially destroyed, and to charge the cost thereof to the owner of such property. This remedy shall be cumulative and in addition to the fine, penalty or punishment provided for the violation of said Ordinance, and Section of the said Ordinance is hereby declared to apply to violations of this section and to set forth the method of punishment for any violation thereof.

RIGHT OF ENTRY.

Section 130. The members of the Board of Trustees, the Inspectors of Buildings, the Chief of the Fire Department and the City Marshall shall have a right to enter at any time any room or building used for public entertainments of any kind.

GENERAL PENALTY.

Section 131. Any person, firm or corporation violating any of the provisions of this Ordinance, for which a different penalty is not herein provided, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punishable by a fine of not less than $10.00 nor more than $300.00, or imprisonment in the City Jail for not more than three months, or by both such fine and imprisonment. Each such person, firm or corporation shall be deemed guilty of a separate offense for every day during which any building erected, altered, repaired or removed by such person, firm or corporation, in violation of any of the provisions of this Ordinance continues in such condition, and for every day during wich any other violation of this Ordinance by such person, firm or corporation continues, and shall be punishable therefor as herein provided.

Section 132. That the City Clerk shall certify to the adoption of this Ordinance and shall cause the same to be published once in the Torrance Herald, a weekly newspaper published and circulated in said City of Torrance, and which is hereby designated for that purpose and thereupon and thereafter shall be in full force and effect.

The foregoing Ordinance was adopted at a regular meeting of the Board of Trustees of the City of Torrance held on the 20th day of September, 1921, by affirmative vote of at least three trustees, to-wit:

Ayes: Trustees, J. M. Fitzhugh, W. H. Gilbert, R. R. Smith, J. F. Stone and Geo. A. Procter.

Noes: None.

Absent: None.

On motion of Fitzhugh the Clerk was instructed to purchase 250 copies of ordinance number ten in newspaper form same to be sold for twenty-five cents a copy. Trustee Smith made the following ammendment to the motion, viz: That an index be added to the copies put out for sale. Amendment carried. Motion carried by the following vote:

Ayes: Trustess, J. M. Fitzhugh, R. R. Smith, J. F. Stone and Geo. A. Proctor.

Noes: W. H. Gilbert

Absent: None.

A discussion was held on the telephone system but no action was taken at this time.

Motion was made that all demands numbering from 162 to 182 having been properly audited be paid. Motion carried as follows:

Ayes: Trustees, J. M. Fitzhugh, W. H. Gilbert, R. R. Smith, J. F. Stone and Geo. A. Proctor.

Noes: None

Absent: None.

Ordinance number eleven, An ordinance regulating the Presenting, Auditing, and Paying of Demands against the City of Torrance was, on motion, accepted at its first reading.

Ordinance number twelve, an ordinance providing for the keeping and running at large of certain animals and providing for dog license.

Resolution No. 4 was then presented.

No. 4.

Be it resolved by the Board of Trustees of the City of Torrance: That the maps or plans of the following streets shown upon the officially adopted profiles, namely:

Date Avenue,	Profile	Number	4
Elm "	"	"	5
Fern "	"	"	6
Greenwood "	"	"	7
Hickory "	"	"	8
Fourteenth Street		"	2
Sixteenth "		"	3

are hereby declared to show the cross section for all grading the locations and dimentions of all cement curbs and sidewalks, all gutter depths, widths of roadways and crowns of the finished roadway, surfaces and all data necessary and to be a part of the specifications for the improvement of said streets.

Passed and approved by the Board of Trustees of the city of Torrance this 20th day of September, 1921 by the following vote:

Ayes: Trustees Fitzhugh, Gilbert, Smith, Stone and Proctor

Noes: None

Absent: None.

Resolution No. 5 was then presented.

No. 5.

RESOLVED: By the Board of Trustees of theCity of Torrance adopting specifications for constructing oiled Streets, Oiled Macadam Streets, Curbs and Sidewalks upon the streets of Tract No. 4070 in the City of Torrance.
Be it resolved by the Board of Trustees of theCity of Torrance:

That the following specifications for constructing oiled streets, oiled macadam streets, curbs and sidewalks upon the streets contained within Tract No. 4070 as recorded in Book No. 46, Page Nos. 76 & 77 of Maps of the Records of Los Angeles County, California, be and the same are hereby adopted as the official specifications for doing said work and making said improvements.

1. Plans, etc.

The work to be done under these specifications shall include the furnishing of all labor, material and equipment necessary for or appurtenant to the construction and completion of all curbs, sidewalks, graded and oiled roadways, or graveled and oiled roadways shown on and in accordance with the plans, profiles and cross section adopted by the Board of Trustees of the City of Torrance, and on file in the office of the City Engineer.

All work during the progress and on its completion, shall conform to lines, elevations and grades shown on said plans, profiles and cross sections.

The work shall be done in a thorough workmanlike manner and to

the satisfaction of the Superintendent of Streets.

Bidders must examine and judge for themselves as to the location of the proposed work, the nature and the amount of the proposed excavation and of the work to be done.

2. Grading

(a) Rough Grading

Shall include all filling, the removal of all earth, stone or other material of whatever nature it may be, that may be encountered in preparing the street for the improvements to be made. Plowing or excavating sound material shall not be done to a depth greater than six (6) inches below pavement subgrade or the finished grade where no pavement is to be constructed. On any street where the improvement of the roadway is specified, the rough grading in any block shall be completed and the surface leveled up approximately to final subgrade or grade before the construction of any cement work is begun in such block Excavated material not required for fills, shall be removed from the street as soon as excavated.

(b) Filling

The space over which fills are to be made, shall first be cleared of all brush, timber, trash or debris. All filling shall be done with good sound earth or gravel, and no oil cake or other lumpy material, or material of a perisable, spongy or otherwise improper nature, shall be used in filling. No fills shall be widened by dumping loose material over their slopes.

Fills shall be made in layers not exceeding one (1) foot in depth. Each layer after being leveled off, shall be thoroughly dampened.

(c) Mud and Soft Material

When mud, or other soft or spongy material is encountered it shall be removed and the space filled with gravel or good earth, which shall be placed in layers and dampened as hereinbefore set forth for fills.

The width of the street to be graded shall mean the entire width of the street from property line to property line. The roadway space between curb lines shall be shaped to conform to the cross section as shown on the plans and where no sidewalks are constructed the sidewalk spaces shall be surfaced to conform to a plane sloping from the established grade at the property line to the top of the curb as shown in the plans.

After the street has been brought to the grade and cross section shown in the plans, the surface shall be thoroughly rolled with a steam or gasoline tandem roller weighing not less than two hundred (200) pounds per linear inch width of tire. Any surface shown by this rolling to be yielding or settling shall be refilled and rerolled. Mud, sandy, soft or spongy material must be removed or made solid by the addition of material which will pack until the surface ceases to creep or wave under the roller. Any depression made by rolling, ruts made by trucks or wagons, depressed or settled pipe trenches shall all be filled and rolled until smooth and solid. All trenches excavated in the street shall be thoroughly wet and settled prior to rolling of the street.

Whenever the surface of the street is too dry to compact under the roller it shall be wet and cultivated until it will pack under the roller. Whenever any street is too wet to permit of thorough rolling the contractor shall wait until the material has dried sufficiently and then complete the rolling.

After being rolled the street shall be tested for grade and cross section and when found to be in accordance with the specifications and grades given, the contractor shall proceed as hereinafter mentioned.

3. Oiling and Graveling

The street shall be sprinkled to make the soil as damp as is necessary to absorb the oil. Oil, containing not less than 75% of asphalt, shall then be evenly distributed over the roadway of the street in a volume equal to three-fourths (¾) of a gallon per square yard of surface.

The street shall be well barricaded to prevent any travel thereon and after a lapse of twenty-four (24) hours, and gravel of the quality hereinafter described shall be evenly spread upon the oiled surface to absorb all surplus oil.

The surface shall then be brought to a smooth and even surface by the use of hand brooms or rakes and any surplus sand or gravel shall be removed.

The second coating of oil, containing not less than 90% of asphalt, shall then be evenly distributed over the surface of the street in a volume equal to three-fourths (¾) of a gallon per square yard of surface covered. The street shall again be barricaded against all traffic and after a lapse of not less than twenty-four (24) hours, and gravel of the same quality hereinafter described shall be evenly spread upon the oiled surface in sufficient quantity to absorb all oil. The roadway shall again be swept to a uniform surface and again rolled with the tandem roller here-in-before described. Any oil showing through the gravel top covering shall receive additional gravel and on completion the whole surface shall have not less than one-half (½) of an inch of gravel applied to absorb any oil that may thereafter come through the surface.

The gravel and sand to be used to cover the oil may be a local product and shall conform to the following: At least 90% shall pass a screen of three-fourths (¾) inch square mesh and not to exceed 20%shall pass a screen of ten (10) square meshes to the lineal inch. The gravel and sand shall not contain loam, clay, lime or soft stones in excess of 5%.

Any oiled and graveled or macadam roadway edge not against a cement curb shall have a header board two by six inches placed against it on line which shall be securely staked and left in place.

4. Oiled Macadam

All rock used shall be of sufficient hardness that not more than twenty-five (25) per cent shall be lost in the Rattler Test here-in-after provided for.
After the roadway has been graded and thoroughly rolled as provided in Section 2 of these specifications, having a surface three (3) inches below the finished aross section shown on the plans, crushed rock shall be evenly spread thereon and rolled with a tandem roller weighing not less than two hundred (200) pounds per linear inch width of tire until the compacted rock layer is three (3) inches in thickness and is compact and unyielding under the roller. Any spots which show creeping, sanding through the rock or failure to compact shall be dug out, refilled and made solid.

This foundation layer of rock shall be of a size which will pass a three (3) inch screen and be retained on a one and one-half (1½) inch screen. Upon this compacted layer of rock a coating of oil containing not less than 90 per cent of asphalt shall be evenly spread in a volume equal to three-fourths (¾)

gallon per square yard of surface covered. This coating of oil shall be covered with sufficient crushed rock of the quality described of a size which will pass a three-fourth (¾) inch screen and which will be retained upon a one-fourth (¼) inch screen, to absorb the oil and permit it to be once rolled with the tandem roller here-in-before mentioned. After rolling a second coating of oil containing not less than 90 per cent which will be retained on a screen of ten meshes to the linear inch, until all oil is absorved. The street shall again be rolled withthe tandem roller above described and after the rolling a coating of stone chips at least one-fourth (¼) inch in thickness shall be spread over the surface.

5. Rattler Test

At least thirty (30) pounds of the material to be tested shall be available for the test. Each sample when ready for the rattler shall consist of five (5) kilograms (eleven pounds) of said material, all shall pass a 2 inch screen, sixty (60) per cent, by weight, shall be retained on a ¾ inch screen, and all shall be retained on a ½ inch screen. The said sample shall be tested in a rattler known as the Los Angeles Rattler, and maintained by the City of Los Angeles, or an identical machine, consisting of a metal cylinder twenty-eight (28) inches in diameter, and twenty (20) inches in length, longitudinally mounted on a horizantal shaft and having a shelf four (4) inches wide extending from end to end. During the test the rattler shall be revolved at a rate of between twenty-eight (28) and thirty (30) revolutions per minute. A charge for the rattler shall consist of the said five (5) kilogram sample and fourteen (14) cubical blocks of cast iron with rounded corners and edges, said blocks measuring about one and one-half (1½) inches in each dimension, and having a weight of five (5) kilograms. After receiving the charge the rattler shall be given five hundred (500) revolutions. The sample shall then be screened and the portion, by weight, which will pass a 10-mesh screen shall be considered and designated as the loss.

6. Oil Tests and Spreading

(a) Spreading Oil

All oil shall be spread in a uniform sheet by an automobile distributor equipped with pressure spray nozzles. The pressure shall be at least twenty-five (25) pounds per square inch and the temperature at least three hundred (300) degrees Fahrenheit. In the process of oiling, care must be taken not to soil the curbs or walks.

(b) Oil

Shall be an asphaltic base petroleum or petroleum residuum; it must be free from adulterations and must conform to the following requirements:

(a) Water and Sediment. - It shall not contain more than one-half (½) per cent, by volume, of water and not more than one (1) per cent, by volume, of sediment. The percentage of water and sediment shall be determined by mixing in a graduated centrifugal tube fifty (50) cubic centimeters of the oil to be tested with fifty (50) cubic centimeters of a mixture of gasoline and carbon bisulphid having a specific between.9993 and .9964. The tube and contents shall be run in a centrifugal machine ten (10) minutes at a speed of fifteen hundred (1500) revolutions per minute, after which the per cent of water and sediment settled at the bottom of the tube shall be computed.

(b) Solubility in Carbon Bisulphid. - A two (2) gram sample, when freed from water, shall be at least ninety-nine (99) per cent soluble in carbon bisuplhid.

(c) Solubility in Bromine Bisulphid. - Of the bitumen soluble in carbon bisulphid, at least ninety-nine and sixty-five hundredths (99.65) per cent shall be soluable in the carbon bisulphid-bromine solution when tested as follows: Twenty-five (25) cubic centimeters of a solution composed of one hundred thirty-five (135) milligrams of bromine to one hundred (100) cubic centimeters of carbon bisulphid shall be poured upon two (2) grams of oil and shaken in nnn-actinic light for three (3) minutes. It shall be immediate-filtered through a Gooch crucible with manometer not exceed-twenty (20- centimeters. The solution shall pass through the crucible in not less than five (5) nor more than then (10) minutes. The crucible shall then be washed with carbon bisulphid, dried at a temperature between one hundred (100) and one hundred five (105) degrees Centigrade and weighed.

(d) Asphalt Determination. - Fifty (50) grams of the oil freed from water shall be placed in a cylindrical brass dish having an inside diameter of ten and one-tenth (10.1) centimeters, and shall be kept in a Brown Asphalt Evaporator, maintained at a uniform temperature of five hundred sixty-five (565) degrees Fahrenheit until it hsa reached a consistency which will result in a penetration of eighty hundredths (0.80) centimeter. The residue shall then be weighed and the per cent of the original weight computed. The time required to reduce the oil to the penetration of eighty hundredths (0.80) centimeter shall be less than one hundred sixty-five (165) minutes. The sample shall be tested for penetration in the above mentioned brass dish at a temperature of seventy-seven (77) degrees Fahrenheit. The test shall be made with a needle one and sixteen thousandths (1.016) millimeters in diameter, having a tape of six and thirty-five hundredths (6.35) millimeters to a sharp point. The specified penetration shall be the depth to which said needle will penetrate in five (5) seconds under a load of one hundred (100) grams.

(e) Adhesiveness. - The adhesiveness of the oil with different percentages of asphalt at the specified temperatures and weight on the rod, shall be not less than as follows:

75 per cent asphalt,	no adhesive test demanded					
80 " " " ,	100	gram weight,	35	degrees	Centigrade	9
80.5 to 85% " ,	760	" "	25	"	"	25
85.5 " 90% " ,	760	" "	35	"	"	27
90.5 " 95% " ,	760	" "	35	"	"	60

The adhesiveness shall be determined with a Brown Adhesivemeter. The rod shall be clamped with the top of same at the thirteen (13) centimeter mark on the scale, and the cup filled with oil to within one and one-half (1½) inches of the top. When the oil has reached the required temperature the rod shall be moved to the top of the scale and then pressed down to the thirteen (13) centimeter mark, moved again to the top of scale, allowed to drain for six (6) minutes and released. The time in seconds required for the rod to fall from the three (3) centimeter mark to the thirteen (13) centimeter mark shall be taken to be the measurement of the adhesiveness of the oil.

(f) Thermal Readings. - It must be delivered at the point of appl cation at a temperature not less than three hundred (300) degrees Fahrenheit, nor more than four hundred (400) degrees Fahrenheit.

(g) Thermal Corrections. - In determining the quantity of oil delivered, the corre tion for expansion by heat shall be as follows:
From the measured volume of oil received at any temperature above sixty (60) degrees Fahrenheit, an amount equivalent to three tenths (0.3) per cent for every ten (10) degrees above said sixty (60) degrees Fahrenheit, shall be substracted as the correction for expansion by heat. For the purpose of measuring this oil, a temperature of sixty (60) degrees Fahrenheit shall be deemed normal temperature.

(h) Testing Oil. - All oil to be used shall be tested by the Superintendent of Streets.

7. Curbs

(a) Size, Radius, etc.

Cement curb shall be of the following size and dimensions; Six (6) inches wide on the top, nine (9) inches wide on the bottom and fifteen (15) inches in depth, having a straight back and all of the batter on the front side - whenever a gutter of one foot in depth below the top of the curb is shown on the plans, the curb shall be six (6) inches on top and ten (10) inches wide on the bottom and eighteen (18) inches in depth.

The radii of all curbs at street intersections shall be eight (8) feet and at alley intersection three (3) feet. At private driveways on either side thereof curbs shall be turned on a radius of three (3) feet to the street edge of the adopted sidewalk line. Curbs shall be placed upon a subgrade thoroughly settled, tamped and dampened.

(b) Forms

Planks used for forms shall be of a width equal to the full depth of the curb, and for straight curb shall be two (2) inches thick. Warped plank and plank not having a smooth straight upper edge shall not be used. Front and back forms shall always be used, Rigid outside forms shall be provided for curb returns having radii of three (3) and eight (8) feet. Benders or thin plank forms, rigidly placed, may be used for curb returns having a radius not specified above and for curb on other curves. All curb forms must be carefully set to proper alignment and grades. The curb plank shall be rigidly held in place by the use of not less than five (5) pairs of iron stakes to each twenty (20) foot section of curb, and other sections in proportion. Clamps, spreaders and braces shall be freely used where required. Curb forms shall not be removed from the concrete in less than one-half (½) hour after the concrete has been tamped into place, and the back form shall not be removed until the face of the curb has been plastered.

(c) Placing Concrete

Concrete, machine or hand mixed, shall be placed in the forms in layers not more than six (6) inches in depth. Each layer shall be tamped until the concrete is entirely compacted.

(d) Plastering and Finishing

The top of the curb shall be plastered with one-half (½) inch coat of finish mortar, prepared as hereinafter specified, as soon as the concrete has been thoroughly tamped. The face of the curb shall receive a one-fourth (¼) inch coat of the said finish mortar as soon as the forms are removed, the back to a depth of approximately one-half inch and the face to a depth not less than two (2) inches below the gutter line, but

(d) Plastering and Finishing (continued)

in no case less than twelve (12) inches. The plastered surfaces of the body of the curb before the concrete has set, shall be smoothly polished and marked with joints at right angles to the curb into blocks of uniform length, not less than two and one-fourth ($2\frac{1}{4}$) nor more than three and one-half ($3\frac{1}{2}$) feet. The front edge of the top of the curb shall be rounded to a radius of approximately one (1) inch and the back edge to a radius of not more than one-half ($\frac{1}{2}$) inch. The finished curb shall show a true straight face and top of uniform width, free from humps, sags or inequalities. When a straight edge of five (5) feet long is laid upon the top of the curb, it shall not vary more than one-fourth ($\frac{1}{4}$) inch from the straight edge, except at curves or grade changes.

(e) Expansion Joints.

At all returns an expansion joint shall be placed at the end of the curb . This joint shall consist of three-eights (3/8) inch composition board made of two (2) layers of felt or paper and a filler of asphalt, shaped to the cross section of the curb and placed at right angles to the curb grade.

(f) Contractor's Name on Curb.

The Contractor may stamp his name on the c urb at intervals of not less than three hundred (300) feet. The letters shall not be smaller than three-fourths ($\frac{3}{4}$) inch in height.

(g) Curing

The back and top of the curb shall be covered with earth or sand within twenty-four (24) hours after completion, shall remain covered and shall be watered three times daily for seven (7) days thereafter.

(h) Repairs

The Contractor shall repair all curbs damaged by him during the construction. Where any curb requires repairs before acceptance, the repair shall be made by removing and replacing the entire stone and not by refinishing the damaged portion

8. Sidewalks

(a) Returns and Slopes

The finished surface of the sidewalk shall lie in a plane sloping from the established grade at the property line to top of the curb and at street intersection shall cover the entire surface included within the prolongation of those sidewalk lines next to the property lines and the curbs.

(b) Subgrade

The sidewalk shall be placed on a thoroughly compacted and dampened subgrade. The body of the walk shall be three (3) inches thick after being compacted and shall on receiving a finishing coat of mortar one-half ($\frac{1}{2}$) inch in thickness have a total thickness of three and one-half ($3\frac{1}{2}$) inches.

(c) Forms

Strips used as side forms shall be not less than one and five-eights ($1\frac{5}{8}$) inches in thickness nor less than three and one-half ($3\frac{1}{2}$) inches in depth, and shall have a smooth straight upper edge.

(d) Placing Concrete

Concrete, machine or hand mixed shall be spread between side strips and thoroughly tamped until the concrete is compacted. The surface of the concrete must be smooth and uniform and shall be tested as to grade with a guage notched at each end and extending one-half (½) inch below the tops of the side strips.

(e) Wearing surface and finish

Immediately after the concrete has been placed as above, the finish mortar shall be applied and thoroughly troweled in. Sufficient mortar shall be used to produce a wearing surface having a thickness in no place less than one-half (½) inch. The surface shall then be troweled, retroweled, jointed into squares of not more than twelve (12) square feet, and except on grades of five (5) per cent or over, shall be polished. The finished walk shall show an even, true surface varying less than one-fourth (¼) inch from a five (5) foot straight edge, except at grade changes.

(f) Float Finish on Grades

On grades of five (5) per cent or more, after the wearing surface has been trowled and retroweled as above specified, it shall be floated with a wooden float before it is marked into squares.

(g) Expansion Joints

Expansion and shrinkage joints must bs provided in all sidewalks, near all alley and street curb returns and in the center of all spaces between the same throughout the entire length of the sidewalk, as follows:

At returns the expansion joints shall be placed on the produced inner walk lines.

The expansion joints shall be open joints made by setting one-fourth (¼) inch steel plates and withdrawing after concrete has been tamped into place.

(h) Contractor's Name on Sidewalk

The contractor may stamp, his name in the sidewalk at intervals of not less than three hundred (300) feet. The letters shall not be less than three-fourth (3/4) inch in height and impressed to a depth of one-fourth (¼) inch.

(i) Protection and Curing

Sidewalk shall be protected by barriers and when the cement has had its initial set, the sidewalk shall be covered with earth to a depth of two (2) inches and watered three times daily for seven (7) days.

(j) Repairs and Replacements.

The Contractor shall repair all curbs and walks damaged by him during the construction of sidewalk. Where any sidewalk requires repairs before acceptance, the repair shall be made by removing and replacing entire sections and not by re-finishing the damaged portion.

9. Concrete

9.Concrete (continued)

(a) Portland Cement - Amount in each sack and requirements.

Cement where specified, shall be Portland Cement, shall be received on the job in sacks filled at the cement factory and each sack comtaining not less than ninety-four (94) pounds net, of cement. Said sack of cement shall be deemed to have a volume of one (1) cubic foot. The street superintendent shall have authority to require any lot of cement to be held in storage until seven day tests can be completed where the cement is of a brand not previously tested by him, or where previous samples of the same brand tested by him have fallen below the requirements herein set forth. He shall have the authority to require the reconstruction of work in which cement has been used which subsequent tests show to be not in conformity with requirements, All cement shall meet the following requirements, and shall be tested therefor in accordance with Specifications C 9-17 of the American Society for Testing Materials.

(b) Fineness

The residue on a 200-mesh screen shall not exceed twenty-two (22) per cent by weight.

(c) Soundness

A pat of cement paste about three(3) inches in diameter and one half ($\frac{1}{2}$) inch in thickness at the center, tapering to a thin edge, stored in moist air for twenty-four (24) hours, and then kept in an atmosphere of steam at ninety--eight (98) to one hundred (100) degrees Centigrade for five (5) hours, shall show no signs of distortion, cracking, checking or disintegration.

(d) Time of Setting

The cement shall not develop initial set in less than forty-five (45) minutes when tested with a Vicat Needle, Nor in less than sixty (60) minutes when tested with a Gilmore needle. Final set shall be attained within ten (10) hours:

(e) Tensile Strength

The average tensile strength in pounds per square of not less than three (3) mortar briquettes, composed of one (1) part, by weight, of cement and three (3) parts, by weight, of Standard Ottawa sand, shall be not less than the following:

Age at Test	Storage of Briquettes	Lbs. per sq.in
7 days, 1 day in moist air,	6 days in water	200
28 days, 1 day in moist air,	27 days in water	300

The average tensile strength in twenty-eight (28) days shall be greater than the average tensile strength in seven (7) days.

(f) Concrete sand

Sand shall consist of waterworn particles of rock, produced by natural causes, and shall be free from both oil and organic matter. Sand for the various uses specified herein shall meet the following additional requirements.

Sand for all cement and concrete work shall not contain more than three (3) per cent, by weight, of mica. The sand shall not lose more than five (5) per cent, by weight, when subjected to the test for clay and silt specified in Section (G) hereof. Not less than ninety (90) per cent, by weight, shall pass a $\frac{1}{4}$ inch screen; at least fifty (50) per cent, but not more than eighty-five (85) per cent, by weight, shall be retained on a 30-mesh screen.

(g) Testing Sand for Silt or Clay.

Shall be done in the following manner: One (1) kilogram of dry sand shall be placed in a sixteen (16) inch standard gold

(g) Testing Sand for Silt or Clay. (continued)

pan, covered nearly to the rim with water, stirred and agitated gently but thoroughly with the hand, and allowed to settle thirty (30) seconds. The water shall then be poured off uniformly in fifteen (15) seconds. This washing process shall be repeated until immediately after stirring, standard six (6) point news print may be easily read through five (5) centimeters of water. The water shall then be drained off, the sand dried and weighed, and the loss determined by the fifference in the weight.

(h) Concrete Gravel

May be run of the pit sand and gravel from local pits all of which shall pass a two (2) inch square mesh screen and not to exceed 50 per cent of which shall pass a $\frac{3}{4}$ inch square mesh screen. Of that portion passing the $\frac{3}{4}$ inch screen two-thirds (2/3) shall pass a one-fourth ($\frac{1}{4}$) inch square mesh screen. The per cent of fine material which passes a 30 mesh to the linear inch screen shall not exceed 5 per cent by weight of the original weight.

The presence of loam, clay floury quick sand, lime, soft or crumbling particles in excess of seven (7) per cent by weight, of the original volume is prohibited.

10. Proportion for mixing Concrete

(a) Proportion

The body of cement curbs and sidewalks shall be a mixture proportioned as follows: 1 sack of cement, 6 cubic feet of run of the pit gravel and sand misture hereinbefore described and 80 pounds of water.

(b) Measuring Materials

For machine or hand mixing the gravel mixture shall be measured in wheelbarrows which, when struck with a straight edge resting upon the sides, shall have the capacity necessary to accurately maintain the above proportion. Every wheelbarrow load or box full of material used must be struck with a straight edge as above specified. Said material shall be measured loose, with out shaking or compacting.
Cement in sacks as above specified shall be dumped directly into the mixer or upon the other material previously measured upon a mixing platform.
The water necessary for every batch shall be accurately measured with an apparatus whcih will positively prevent the use of more water than above specified. No mixer shall be used which is not provided with an accurate water measuring apparatus.

(c) Machine Mixing

Machine mixing shall be done with batch mixers only. For concrete the mixer shall be charged with one (1) sack of cement and sufficient gravel to conform with the proportions hereinbefore stated. Sufficient wafer, not in excess of the quantity above specified, shall be added to produce a plastic or quaking concrete which can be handled without causing a separation of the coarse aggregate from the mortar. The mixer drum shall have a speed of not less than thirteen (13) revolutions per minute and every batch of concrete shall be mixed in the drum of the mixer not less than sixty (60) seconds before any portion of the batch is discharged from the said drum. At least seventh-five (75) seconds must elapse between the placing of successive batches in the mixer.

(d) Hand Mixing

(d) Hand Mixing (continued)

Where concrete is mixed by hand the gravel shall be placed on a tight platform, not less than ten (10) feet wide and twelve (12) feet long, and upon this shall be placed the required number of sacks of cement. The Inspector shall be given the opportunity to check the number of sacks of cement on each batch before the sacks are opened.

(e) Remixing Concrete

No concrete shall be used which has partially set, and no concrete shall be retempered or remixed.

(f) Finish Mortar

The finishing coating provided for both curbs and sidewalks shall be prepared as follows:

(a) Proportions.
The mortar shall consist of one (1) sack of Portland Cement and one and one-half cubic feet of concrete sand as hereinbefore described.

(b) Mixing.
The mortar shall be mixed in a concrete mixer in themanner specified for concrete or in a water-tight mixing box The box shall first be filled approximately one-half ($\frac{1}{2}$) full of sand and rodded off with a gauge. The volume of the sand in cubic feet shall then be determined with a one cubic foot measuring box, and the required number of sacks of cement shall then be added. Each subsequent batch shall be rodded with the same gauge and shall receive a like amount of cement. The inspector shall be given an opportunity to check the number of sacks of cement used in each batch. The material shall then be dry mixed by turning at least three (3) times with a mortar hoe. Sufficient water shall then be added and mixing continued until the batch is uniform in color and consistency. The mortar must be used immediately after mixing and no retempering will be permitted.

11. General Provisions

(a) Inspectors - The contractor shall prosecute the work in the presence of the Superintendent of the Streets of the City of Torrance or of an inspector appointed by him.

Any superintendent, foreman, laborer or other person employed on the work by the Contractor, who fails or refuses to perform the work in the manner specified herein shall be discharged, immediately and such person shall not again be employed on the work.

(b) Preservation of Monuments - The Contractor shall not disturb any monuments on stakes found on the line of improvements without the permission from the City Engineer, and shall bear the expense of resetting any monuments or stakes which may be disturbed without such permission.

(c) Observing City Ordinances - The Contractor shall observe all the ordinances of the City of Torrance in relation to the obstruction of streets, keeping open passageways and protecting the same where they are exposed or dangerous to travel.

(d) Barriers, Lights etc. - The Contractor shall take all necessary measures to protect the work and prevent accidents during construction. He shall provide and maintain all necessary barriers, guards, temporary bridges, watchmen and lights.

(e) Public Utilities * In case it should be necessary to move the property of any owner of a public utility or franchise, such owner will, upon proper application by the Contractor, be notified by the Superintendent of Streets to move such property within the specified reasonable time, and the Contractor shall not interfere with said property until after the expiration of the time specified.

The right is reserved to the City and to owners of public utilities and franchises to enter upon the street for the purpose of making necessary repairs, or for making changes in their property made necessary by the work.

On work including improvement of the roadway the Contractor shall notify the City Engineer in writing, when the rough grading has been completed. During the ten (10) days after the filing of this notice with the City Engineer, the City or any owner of a public utility shall have the right to enter upon the street for the purpose of laying or relaying pipes, conduits, and appurtenances.

(f) Protection of Work and Cleaning Up - The Contractor shall care for all work until final completion and acceptance. All damage done to existing improvements by the Contractor shall be repaired by him. He shall remove all surplus material and rubbish from the work after its completion, and before he makes application for the acceptance of the work.

No work which is defective in its construction or in any of the requirements of these specifications will be considered as accepted in consequence of the failure of any employee of the City, or inspector connected with the work, to point out said defects or deficiency during construction. The contractor shall correct any imperfect work whenever discovered, before the final acceptance of the work.

(g) Loss or Damage - All loss or damage arising from any unforeseen obstruction or difficulties, either natural or artificial which may be encountered in the prosecution of the work, or from any act or omission not authorized by these specifications, on the part of the Contractor or any agent or person employed by him, shall be sustained by the Contractor.

(h) Definitions - Whenever the word "City" is used in these specifications it refers to the City of Torrance, California, Whenever the word "Contractor" is used it refers to the party or parties of the second part in the agreement for the construction of the work herein specified. Whenever the words "Superintendent of Streets" or "City Engineer" are used in these specifications, they refer, respectively, to the Street Superintendent or the City Engineer of the City of Torrance, or their authorized agents or inspectors.

Passed and approved by the Board of Trustees of the City of Torrance this 20th day of September, 1921 by the following vote:

Ayes: Trustees Fitzhugh, Gilbert, Smith, Stone and Proctor.

Noes: None

Absent: None.

Resolution number six was then presented.

No. 6

RESOLUTION OF INTENTION.

BE IT RESOLVED by the Board of Trustees of the City of Torrance:

Section 1. That the public interest and convenience require it and that it is the intention of the Board of Trustees of the City of Torrance, California, to order the following street work to be done in said City, to-wit:

1st. That Date avenue from Redondo Boulevard to Fourteenth Street and that Elm, Fern, Greenwood, and Hickory Avenues from Redondo Boulevard to Sixteenth Street, and that all of Fourteenth Street comprised within Tract No. 4070 as recorded in Book 46, pages 76 and 77 of Maps of the Records of Los Angeles County, California, be graded their entire widths from property line to property line, the roadways and sidewalk spaces each as shown on the plan of each street or avenue; that the roadways of each be oiled and graveled for a width of 30 feet, or fifteen feet on each side of the center lines thereof, and that cement curbs be laid thereon having the top edges of the street faces thereof fifteen feet from the center lines of the said streets or avenues.

The cross sections for all grading, the location and dimensions of all cement curbs and sidewalks, all gutter depths, widths of roadways, and crowns of finished roadway surfaces shall be as shown on the plans of each street as heretofore adopted.

2nd. That all of Sixteenth Street comprised within the abovementioned Tract No. 4070 be graded its entire widths from property line to property line, the roadway and sidewalk space as shown on the said plans heretofore adopted. That the raodway be macadamized with three inches of oiled macadam for a distance of fifteen feet on each side of the center line of said street. That cement curbs be laid on each side of the roadway having the top edge of the street face fifteen feet from the center line of the street; and that cement sidewalks five feet in width and three and one half inches in thickness be laid on each side of said street having the street edges thereof nineteen feet from the center line of the street.

The cross-section for all grading, the location and dimensions of all cement curbs and sidewalks, all gutter depths widths of roadways, and crowns of finished roadways surfaces shall be as shown on the plans heretofore adopted.

And whereas said contemplated work and improvement of said Sixteenth Street, in the opinion of the Board of Trustees is of more than local or ordinary public benefit, said Board hereby makes the expense of said work and improvement chargeable upon a district, which district said Board hereby declares to be the district benefited by said work and improvement, and to be assessed to pay the costs and expenses thereof; which said district is bounded and described as follows:

A strip of land 560 feet in width or 280 feet on each side of the center line of Sixteenth street, extending from the Easterly line of Tract No. 4070 above mentioned, and a Southerly prolongation thereof as said tract is recorded in Book 46, pages 76 and 77 of Maps of the Records of LosAngeles County, California, to the Westerly lines of Blocks No. 33 and No. 34 of Tract No. 2675 as recorded in Book No. 7, Page No. 33 of Maps of the Records of Los Angeles County, California.

Section 2. All of said work shall be done in accordance with the plans and specifications heretofore adopted for doing said work and now on file in the office of City Clerk, of the City of Torrance.

Section 3. The Board of Trustees of the City of Torrance, in making the improvements described herein, elect to proceed on accordance with the provisions of an Act of the legislature of the state of California, designated as the Improvement Bond Act of 1915 approved June 11 1915., and all amendments thereto, and notice is hereby given that serial bonds to represent unpaid assessments, and bear interest at the rate of seven per cent per annum, will be issued hereunder in the manner provided by the Improvement Bond Act of 1915, the last installment of which bonds shall mature nine years from the second day of July next succeeding nine months from their date.

Section 4. Notice is hereby given that on Tuesday, the 11th day of October, 1921 at 8:00 o'clock P. M. in the Council Chamber of the Board of Trustees of the City ofTorrance any and all persons having any objections to the proposed work or improvements may appear before said Board and show cause why said proposed improvement should not be carried out in accordance with this resolution.

Section 5. The Clerk shall cause this resolution of intention to be published twice in the Torrance Herald, a weekly newspaper published and circulated in said City and hereby designated for that purpose by the Board of Trustees there being no daily newspaper published in said City.

Section 6. The Street Superintendent shall cause to be conspicuously posted along the line of said contemplated work and improvement and in front of all property liable to be assessed, notices of the passage of this Resolution of Intention, in the time, form and manner required by law.

The foregoing resolution was passed by the following vote:

Ayes: Trustees: Fitzhugh, Gilbert Smith, Stone and Proctor.

Noes: None

Absent: none.

It was reported that a certain rooming house was not keeping a register for their guests in compliance with the State Law and the Marshall was instructed to notify the proprietor such was necessary.

The Clerk stated that he had been requested by Mr. English in behalf of Mr. Isaac Burkhart to ask the Board to take action to have a certain light pole removed as it was endangering the live and property of his tenants. The Clerk was instructed to notify Mr. Burkhardt that the City would request the Southern California Edison Company to move the pole after Mr. Burkhart had made a similar request.

There being no further business at this time the meeting adjourned.

Robert J. Dunnigan
City Clerk.
City of Torrance

Approved:

Geo. G. Proctor
President of the Board.